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THESIS

A DECISION SUPPORT PERSONNEL MONITORING DATABASE SYSTEM PROTOTYPE FOR THE UNITED STATES MARINE CORPS

by

David L. Horton

December 1985

Thesis Advisor: Daniel R. Dolk

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A Decision Support Personnel Monitoring Database System Prototype For The United States Marine Corps

by

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Major, United States Marine Corps
B.S., Drake University, 1972
M.A., Pepperdine University, 1980

Submitted in partial fulfillment of the
requirements for the degree of

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ABSTRACT

This thesis examines the decision criteria used in monitoring personnel within the United States Marine Corps. Given the decision criteria used in the manual process, a prototype Decision Support Personnel Monitoring Database System is developed using the dBASE III query language. The system is designed to run on a microcomputer and allows the user to add, modify, delete or review all databases. Personnel reports can be generated identifying all officers eligible for a specific billet or all billets that an officer is qualified to fill. This real-time personnel monitoring system is used to assist the personnel monitors in matching vacant job assignments with eligible qualified Marines.

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I. INTRODUCTION

A. BACKGROUND

Personnel within the United States Marine Corps are transferred periodically from one duty station to another, as Marines or jobs become available. When a Marine is transferred his duty responsibilities may also change. Marines available for transfer and billet vacancies are currently monitored manually, with the assistance of some mainframe computer reports and a personalized set of index cards. The personnel monitors perform the arduous task of matching Marines and jobs after considering all available information. Automating some of the decision criteria used in this decision-making procedure is the purpose of this thesis.

A transfer decision is generated by a Marine becoming available for transfer through joining the service, completing a school, or finishing an overseas assignment. A billet becomes available by changes in the existing table of organization, or the exiting of the current billet holder due to reassignment orders. Improving the selection process and planning for future transfers requires a system that is interactive and online. Due to the amount of Marines in the system, a manual process can only take care of immediate demands, but not project future demands.

For a system to be improved, it is first necessary to understand what it currently achieves. In this case, personnel are monitored and transferred as required by an available Marine or by a vacant billet. Currently, the monitor is aided by a quantity of sorted reports, and a personalized set of index cards. There is basically no real-time capability, even though all the required information is stored on a large mainframe computer. The information that is retrieved is structure-limited and time consuming. Before a final decision is made on transferring a Marine, it is possible for three different monitors to provide input and for over thirty different variables to be considered.

If part of the decision making process can be automated it will enhance the personnel monitor's ability to plan and coordinate the individual movement of Marines to future job assignments. The personnel monitor will need the capability of viewing the current status of an individual Marine at a moment's notice. He can then provide immediate feedback to the Marine or whomever is asking the question about personnel. By providing the personnel monitor with immediate access to an updated personnel database, future requirements can be determined and resolved with the aid of the microcomputer. This automated real time assistance will reduce the number of variables used to make the final decision and provide the user more time for planning.

B. OBJECTIVES

The objectives of this research paper are to determine:

1. What decision criteria are used in making a transfer decision?
2. What are the priorities in filling different assignments?
3. What are the external constraints which make the transfer decision difficult?
4. What automated assistance can be provided to support the decision process?

After analyzing the current manual system used by the personnel monitors, meeting the requirement for a decision support personnel monitoring system was given first priority. The objective of this thesis is to build a system prototype which can eventually be expanded for use throughout the Marine Corps and other services.

The design objectives of the Personnel Monitoring Database System (PMDS) are:

1. Run on IBM compatible personal computer.
2. Run in a relational database environment.
3. Flexible enough to allow maintenance by the user.
4. Have capability to customize the data retrieval based on demand requirements.
5. Have capability of increasing the database size without having to reconstruct the database.
6. Have a programming language that is both user friendly and provides powerful command techniques.

C. METHODOLOGY

The purpose of the automated personnel monitoring system is not to replace the human side of personnel managing, but to assist with the known constraints. This would then reduce the transfer population reviewed to only qualified eligible Marines. Since the personnel monitoring system is a prototype system, the scope has been limited only to Marine Corps data processing officers. However, the concept should work with any occupational field or any size population within the constraints of the microcomputer.

To develop this management tool for the monitor requires several steps:

1. Review the existing procedures and develop the requirement analysis.
2. Determine the system design strategy and constraints of the different alternatives.
3. Develop the database system programs and test data to properly implement the database system constraints.
4. Determine future system enhancements for the new personnel monitoring system.

The objectives of this thesis, as discussed above, will be presented in the chapters and appendices that follow. Chapter II provides the PMDS requirements analysis and the monitoring criteria. Chapter III will discuss the database design and structure. Chapter IV presents the system implementation and program module hierarchy. Future recommendations and conclusions will be covered in chapter V. Appendix A is the PMDS data dictionary. Appendices B thru G show the module listings for the entire system. Appendix H is the PMDS user manual.

II. REQUIREMENTS ANALYSIS

A. INTRODUCTION

Automated Data Processing (ADP) is broken into several related components--hardware, software, firmware, maintenance and personnel. The intent of this research is to examine at the assignment of ADP personnel who operate the hardware, program the software, use the firmware, and provide the maintenance. If the monitoring of these personnel can be facilitated by a decision support system then time, effort and dollars can be saved by all concerned.

The scope of this research paper is to look at officers in the United States Marine Corps, who have ADP as one of their occupational specialities. This will be accomplished by reviewing the personnel monitoring system currently used in the Marine Corps and then determining what decisions are used to support that ADP personnel monitoring policy.

After reviewing what decision criteria are currently being used to monitor ADP personnel in the Marine Corps, we will design automated improvements to enhance the existing manual system. The review will include the creation of an automated decision support system that can be used to assist the personnel monitor. Of course, during this entire review process, the human side of ADP and managerial flexibility must be emphasized to provide better ADP control.

B. THE PROBLEM

The scope of the problem and essential background information are discussed in this section.

1. Scope

The United States Marine Corps has over 196,000 Marines who are doing thousands of different jobs at hundreds of different duty stations throughout the world. The process of monitoring these personnel so that the best qualified Marine is stationed where his skills can best be utilized is an arduous task. The purpose of this paper is to analyze this monitoring process. Only the automated data processing side of the Marine Corps will be addressed. However, the same concepts will work for most of the other occupations within the Marine Corps. In fact, these monitoring concepts will also work for the sister services of the Army, Navy and Air Force by making only a few specific modifications in the decision criteria structure.

The Marine Corps has approximately 2,000 Marines who have a primary, secondary or tertiary Military Occupational Specialty (MOS) of 40xx or 96xx. All 40xx personnel are identified as data processing school trained Marines. The Marines with a 96xx MOS have received graduate level schooling in Information Systems Management or Computer

Science. Within the ADP community in the Marine Corps, there are approximately 1600 enlisted personnel and 400 officers.

2. Background

To understand the arduous task of monitoring Marine Corps ADP personnel, it is first necessary to explain the ADP MOS and MOS paygrade structure for Marine officers.

a. ADP Military Occupational Speciality

(1) 4001 ADP Basic Data Processing Officer. This officer has been selected for the data processing field and may undergo on-the-job training at a permanent duty station. This officer has not been to the formal military Computer Science School (CSS) which is located in Quantico, VA. The basic course at CSS is called the Data Systems Officer (DSO) course and usually takes three months to complete.

(2) 4002 Data Systems Officer. This officer has successfully completed the DSO course and has received additional training in programming, customer services, or computer operations. This officer is usually an unrestricted officer who is capable of filling any data processing assignment.

(3) 4006 Data Operations Officer. This officer usually has prior enlisted data processing experience in the computer operations area. This officer is normally a limited duty officer or a warrant officer. Basically, this

means that this officer should only fill operation officer type assignments.

(4) 4010 Data Programming Officer. This officer will usually have prior enlisted experience in computer programming. Most of the time this officer is a limited duty officer or a warrant officer. Again, this means that an officer with this MOS should fill only programming officer type assignments.

(5) 9628 Computer Engineering Officer. This officer has a primary MOS which may be unrelated to the data processing field. However, as a secondary or tertiary MOS, the officer has received graduate level training in computer engineering. Normally a 9628 type job will be filled by an officer just graduating from school as a pay back billet. However, because there are so few Marines with this speciality, often the officer will have a tour in this occupational field every other assignment.

(6) 9646 Data Systems Specialist. This officer has a primary MOS which may be unrelated to the data processing area. However, as a secondary or tertiary MOS, the officer has received graduate level education in the computer science field. Normally a 9646 type job will be filled by an officer just graduating from school as a pay back billet. It is possible due to personnel shortages that this job could be filled by a 4002 or 9648 trained officer.

(7) 9648 Management Data Systems Officer. This officer may have a primary MOS which is unrelated to the data processing field. The officer has received this secondary or tertiary MOS by completing graduate level education in the field of Information System Management. Normally a 9648 type job will be filled by an officer just graduating from school as a pay back billet. It is possible due to personnel shortages that a 9648 type job could be filled by a 4002 or 9646 trained officer.

(8) 9906 Colonel. This MOS is only maintained by a ground colonel in the Marine Corps. This MOS is a primary MOS for a colonel and does not indicate data processing background. These officers are monitored based on a secondary MOS of 4002, 9646, or 9648 which indicates the colonel has received prior formal ADP training. There are several officers that have the ADP education and due to a personal choice, have had their ADP MOS specialty dropped from the personnel master record. However, these few colonels are maintained through a turnover file held by the monitors. Figure 2.1 displays the military rank structure for each MOS.

b. Current Personnel Monitors

Officers working in the Data Processing field are monitored by three different monitoring sections--the Monitor Section, the Special Education Section, and the Occupational Field Sponsor.

Rank	Applicable MOS's
Warrant Officers	- 4006, 4010
Company and Field Grade Officers	- 4001, 4002, 4006, 4010, 9628, 9646, 9648
Colonels	- 4002, 9646, 9648, 9906

Figure 2.1 ADP Military Rank Structure

(1) The Monitor Section. In the Marine Corps, the Monitor Section is responsible for tracking all personnel of specific pay grades. Usually each monitor will track the personnel in several MOS's for a specific pay grade or grades. This is particularly true in the smaller highly technical MOS's. This section has the final say in determining the officer's next duty assignment.

(2) The Special Education Program Section. This section is mainly concerned with monitoring all personnel that have a Special Education Program (SEP) degree. This degree can be an undergraduate or graduate level degree. These Marines are given a secondary or tertiary MOS of 96xx and are required to complete a pay back tour in that SEP field. It is possible that a SEP qualified officer may serve several SEP tours depending on personnel shortages and Marine Corps priorities. The SEP monitor oversees all pay grades in each SEP MOS and will usually have considerable say in an officer's assignment following the completion of the SEP school.

(3) The Occupational Field Sponsor. This section is mainly concerned with the Marines within a specific job specialty, such as ADP personnel. The Occupational Field Sponsor monitors all personnel and billet vacancies within that occupational field. This includes any SEP qualified officers that enter their specific occupational area. Before an officer is selected for the next duty assignment, this section is often requested to provide input and recommendations to the Monitor and Special Education Program Sections. This guidance is requested because the assignment will have an effect on the occupational field throughout the Marine Corps.

It is possible that an officer is monitored by all three sections, each looking at the officer as an asset from different viewpoints--pay grade, special education, or technical skills. In many situations these views can and will overlap each other. The officer's next duty assignment will be determined from these views and each section's decision criteria.

Personnel data files are currently automated on a mainframe computer. Sections of these files can be down loaded to microcomputers; however, this is a time consuming process when information is needed immediately. This has caused the monitors to create an indexed card system on each individual Marine. In addition, a series of reports are maintained--in the most commonly sorted sequences--to provide a quicker response time to the requester. The combination of the manual index file system and printed reports is a tedious way of getting the job accomplished. It appears that the driver of the ADP personnel monitoring is the Occupational Field Sponsor. This research will concentrate on the criteria used in making reassignment decisions.

c. Reasons For A Decision

There are only two reasons that would cause an assignment decision to be made--Personnel requirements and Duty Station requirements.

(1) Personnel Requirements. As new officers join the ADP field and others leave the ADP field, vacancies in billets are generated. When one officer is transferred to fill a specific billet, it leaves a billet vacant. This domino effect keeps officers on a continually moving platform.

(2) Duty Station Requirements. As missions change within the Marine Corps, billets are continuously added, deleted or modified. As these changes take place personnel are required to fill these billet assignments. Usually, this is the driving force in reassignment of personnel within the ADP community. It should be noted that there are not enough data processing personnel to fill all the job requirements, therefore, priorities in placement must be determined. Often due to a shortage of

some skills, substitutions or second choices in skill levels or pay grades are accepted. The command's needs will be met in the best interest of the Marine Corps and the officer.

C. DECISION CRITERIA

1. Overview

The main purpose for making a personnel reassignment decision is to fill a billet that is now, or will be in the future, vacant. It should be pointed out that all vacant ADP billets are not required to be filled. Each duty station has a table of organization (T/O). This organizational structure indicates the specific skills (MOS) and the required pay grades necessary to fill each billet at the duty station. The structure includes both military and civilian personnel needed to complete the mission of the section, department or duty station. In addition to the (T/O), each duty station has a specific staffing goal. It is this staffing goal that the Monitor Section is interested in. Usually this staffing goal is less than the T/O. These are the minimum billets and pay grades needed during a non-war status. The major goal is to fill each required staffing goal with the best qualified Marine that is available for relocation.

2. Staffing Priorities

The staffing priorities for each duty station are broken into three levels of commands--accepted, priority, and pro-share.

a. Accepted Command

All accepted level commands must be filled 100 percent with Marines who have the billet MOS and billet pay grades required by the staffing goals. Many times these restrictions in MOS and pay grade are due to certain billet specifics. The officer may be interfacing with other officers of the desired pay grade, therefore, that specific pay grade is a requirement. Some specific technical skills are required in some job specifications and allow for no substitutions. When there aren't any qualified Marines to fill the billet, the Monitor will see if the billet may be left vacant until the next qualified Marine is available.

b. Priority Command

All priority level commands may be filled 100% with Marines who have the required billet MOS and billet pay grades allowing up to ten percent substitutions. A substitution would include a Marine filling a billet that requires a pay grade which is one grade higher than his current pay grade. An example is when a major can fill a lieutenant colonel's billet. This should never be reversed, where an officer is transferred into a billet that requires a pay grade of one lower. Therefore a lieutenant colonel should never be used to fill a major's billet. Additionally, for priority level commands using a MOS, substitution is authorized. An example of this kind of substitution is when a Marine with a 4002 MOS is used instead of the required 4010 MOS. Of course, the main objective is to fill the billet with the same pay grade and MOS as indicated by the staffing goals. This is not always possible due to an inbalance in required pay grades or technical skills.

c. Pro-share Command

All other commands are filled with the best available Marines eligible to be transferred when the vacancy occurs. In some cases, billets are left vacant and are shown by the commands as a personnel shortage.

d. Personnel Accountability

The difference between the organizational T/O and the staffing goals are considered excess personnel. It should be mentioned at this point that when a Marine is sent to a duty station to fill a specific billet, it does not necessarily mean that the officer will be used by the director or commanding general in that capacity. It is the commanding general's decision where all Marines will be assigned, once they have arrived at the duty station. However, if a programming officer is used as a special services officer, then the command will have little justification requesting an additional programming officer from Headquarters Marine Corps. Additionally, ADP directors will usually switch officers around depending on the facility's level of expertise. This helps to develop some organizational flexibility. However, it does not help the monitor in assigning the "best" Marine for the billet. For this reason, many decisions are made to put out the closest fire--leaving little time for projecting future transfer patterns. A decision support system, that applies the routine decision criteria, will allow the monitor to project future demands.

D. DECISION ANALYSIS

1. General

There are many decision criteria that are used to determine if a Marine is qualified to be transferred:

a. Pay Grade

b. Primary, Secondary and Tertiary MOS

c. Time on Station

d. Time in the Geographical Location

e. Overseas Control Date

f. Expiration of Active Service Date

g. Armed Forces Active Duty Base Date

h. Rotation Tour Date

i. Date of Rank

j. Marital Status and if Spouse on Active Duty

k. Duty Preferences

Each of these decision criterion will be discussed in detail below, however, it should be emphasized that this list does not represent the only decision criteria used in determining who is the best qualified to fill a vacant billet. Nor does the sequence in this list of criteria represent any order of precedence, as the priorities will differ with each billet assignment. The Occupational Field Sponsor uses these decision criteria only as a guide.

2. Details

a. Pay Grade

The officer's pay grade is one of the main decision criterion used in determining who is qualified to fill a vacant billet. The billet pay grade for the vacant position is determined by the duty station's staffing goals and table of organization. In filling a billet, all Marines who have the same current or selected pay grade or have a pay grade of one less than the billet pay grade are eligible for selection. Refer to BPGRD, PGRD, and SPGRD in Appendix A.

b. Primary, Secondary and Tertiary MOS

After the Marines have been qualified by pay grade, the next decision criterion is selecting those officers that have the same military occupation specialty as required in the vacant billet. At this point, it does not matter if this MOS is the officer's primary, secondary or tertiary MOS. Officers that have a qualified substitution MOS are also included in the selection group. An example would be if we are looking for a captain who has a 4006 MOS, then a captain who has a 4002 MOS could be in the group of eligible Marines considered for selection. Refer to AMOS1, AMOS2, BMOS, and PMOS in Appendix A.

c. Time on Station

During this stage in the decision process we have all Marines that have an eligible pay grade and MOS. The time on station criterion is one of the criterion that will separate those Marines who are qualified to fill the billet from those who are eligible to fill the billet. It is a basic Marine Corps policy that an individual will remain on station for a minimum of three years. Two years is considered the minimum time on station before reassignment is even considered. These are only guidelines and this period may be waived with valid justification. For the purpose of developing a decision matrix, three years will be used as the norm and two years as the minimum. The only time this is not a valid assumption is when a Marine is stationed overseas or attending a formal school. In those cases, rotation tour date and estimated school completion dates will be analyzed. Refer to DCTB and RTD in Appendix A.

d. Time in the Geographical Location

The amount of time a Marine is in the same geographical location is considered when time on station is reviewed. It is possible that a Marine may have only one year on station (doing his current job), however, the officer might have been in the same geographical location for six years. In this example the officer would be considered eligible for reassignment. In most cases, the time in the geographical location is the same as the time on station. Refer to GLCDCTB in Appendix A.

e. Overseas Control Date

By the time this criterion is considered, the group of Marines that are--in the bucket--have all been identified as having the qualified pay grade, MOS and transfer eligibility. Usually the first critical decision criterion considered is to check when the officer was last overseas without dependents. This date is commonly called the overseas control date and indicates the last day the officer was overseas.

When the opening billet is an overseas billet, then the monitor is looking for an eligible Marine with no overseas control date or an officer that has the oldest overseas control date. Refer to DAUSDR in Appendix A.

f. Expiration of Active Service Date

Up to this point we have been qualifying officers for a billet and have kept only those who have been qualified and eligible to be reassigned. The monitor must look at the expiration of active service (EAS) date because that date indicates the written obligation the officer has with the Marine Corps. Officers that have been augmented into the Regular Marine Corps will have an indefinite EAS. All other officers are in the Marine Corps Reserve and will have an EAS.

Any officer with an EAS of less than one year will not usually be considered for transfer until a more permanent career status is known. An officer has two opportunities per year to apply for augmentation into the regular Marine Corps, however, selection is very competitive. During the augmentation process, the officer could be selected to remain on active duty by a standard written agreement or an extension of active duty. If these methods are agreed upon by the officer, then the officer's EAS will be adjusted accordingly. Since it is not cost effective to transfer a Marine and his family for less than one year, it is very seldom done unless the officer has just completed a formal military school or an overseas assignment. Refer to EAS in Appendix A.

g. Armed Forces Active Duty Base Date

The armed forces active duty base date (AFADBD), like the EAS, is an indication of remaining obligated service for the Marine. The AFADBD tells the monitor how much time the Marine has had on active duty. If the AFADBD is older than 19 years, it would indicate that the Marine could retire in less than one year. Again since it is not cost effective to transfer a Marine officer and his family for less than one year, the monitor will contact this officer to determine his future intentions for remaining on active duty. Many billets take at least six months to a year before the officer is totally effective in the new assignment. Therefore, it would not be in the best interest of the Marine Corps to reassign an officer who would have less than a year on station at the new duty station when he retires. Refer to AFADBD in Appendix A.

h. Rotation Tour Date

The rotation tour date (RTD) is used for Marines that are currently assigned to a duty station outside the continental United States (CONUS). Basically there are three different ways of acquiring an RTD. First, when an officer is assigned to an unaccompanied billet overseas. This assignment is normally for 12 months. The second way is when an officer accepts an all other overseas billet assignment in lieu of an accompanied overseas billet. This assignment is normally for 24 months. The third way of receiving an RTD is when the Marine is assigned to an accompanied overseas billet. This assignment indicates that the officer and family is overseas for a normal tour, usually 36 months. Regardless of the reason for receiving an RTD, extensions may be authorized by Headquarters Marine Corps. If an extension is authorized, then the RTD is modified. Depending on the type of duty tour, the RTD will be the date leaving CONUS, plus the tour length, minus one day. For example, if an officer left for an accompanied overseas tour on 10 June 1984, then his RTD would be 9 June 1987. When an officer is on an overseas assignment the RTD will be reviewed instead of the time on station, or the geographical location date. Refer to RTD in Appendix A.

i. Date of Rank

The monitor uses the date of rank (DOR) field to help determine which officers are senior within a specific pay grade. This date is also used to help project which officers will be eligible for promotion to the next pay grade. When an officer is eligible for promotion, the monitor usually will not assign him to a billet of his current rank until the results of the selection board are released. This process is normally used when the billet is for a pay grade of captain or higher. This date is also used for priority commands where pay grade substitutions can be made. The more senior officers for each pay grade are considered eligible for billets of the next higher rank. Refer to DOR in Appendix A.

j. Marital Status and if Spouse on Active Duty

Marital status is an important criterion in some billet assignment decisions. The different marital status conditions are single, single with dependent, married, married with military spouse, and divorced. Due to the billet requirements, certain marital status may not be recommended. Marital status becomes important for the married officer with a military spouse. More coordination is required in this kind of reassignment because joint household transfers are preferred to reduce family hardships and additional costs. However, this alone would not restrict an individual from being eligible for reassignment. Refer to MARST and SPOSVC in Appendix A.

k. Duty Preference

One of the major decision criterion used by the Occupational Field Sponsor and the monitor is the Marine's duty preference. Every officer has an opportunity once a year, on the annual fitness report, to indicate where the Marine would like to be stationed next. The only problem with this opportunity, based on personal experience, is that most officers don't know which duty preferences they are qualified to fill. Many times officers list their current duty station, or duty stations where there are not billets available considering only pay grade and MOS. If used incorrectly, the Marine's duty preference will not assist the monitor in the decision process. However, if the Marine officers know which billets they are qualified to fill and then submits their duty preference, a lot of personnel searching may be eliminated. The only other way Marines have of letting the monitor know their duty preferences is by direct written or verbal correspondence. Refer to PDU1, PDU2, and PDU3 in Appendix A.

3. Other Factors

It should be noted that the above decision criteria are only guidelines for the Occupational Field Sponsor to use in the decision process. In addition to these guidelines, other constraints must be considered before the final selection is made. Some of these other considerations are:

a. Is the spouse in the military?

b. Is the officer a female?

c. Does the officer have special abilities or training?

d. Is the officer in the zone for promotion?

e. What type of billet is needed by the officer for the best career pattern?

f. Are there any dependent hardship constraints--such as medical problems, or single parent with dependents?

g. Has the officer been selected for a career-level school?

h. Is the officer currently on a SEP pay-back tour?

i. Has the officer already been slated for reassignment?

j. Prior experience in the Marine Corps--what duty stations and jobs already held?

These are only some of the other factors that the personnel monitor must consider before making the transfer selection. Of course, the priority of this list of decision criteria and its constraints will depend on the circumstances surrounding the assignment. The overall objective is to provide the best eligible Marine for the billet.

E. RECOMMENDATION

The decision matrix for personnel monitoring is a difficult process with many different variables. Although each decision for reassignment has different criteria, there are several routine factors that can be automated. Currently the majority of the decision making is done manually. The use of an automated decision support system will help the Occupational Field Sponsor determine which officers are eligible and qualified to be reassigned. This should reduce the initial number of officers the monitor needs to review. Such decision criteria as pay grade, MOS, time on station, geographical location date, and date of rank require little analysis and can be screened automatically by the computer. The Marines which meet all the requirements then can be reviewed for any other specific criteria necessary for the billet assignment.

Partial automation of the decision making process will provide the monitor more time to make a quality decision. In addition, this will help the monitor project future assignments for Marines and allow more time for putting out fires. More flexibility and control will enable the monitor to concentrate on the humanistic side of personnel management, in addition to, the needs of the Marine Corps. This will help put the best available Marine in the billet.

The next section will discuss the decision support database design used to automate the ADP personnel monitoring system for the Marine Corps.

III. DATABASE DESIGN

A. METHODOLOGY

1. Hardware

The ability of the personnel system to run on a microcomputer is a given performance criterion which allows the personnel monitor the most flexibility. However, it is this same criterion that proves to be the most limiting system feature. The microcomputer is compact and portable, but without a hard disk, the storage capacity is limited to the amount of data that can be stored on a floppy disk. Implementing the system on a microcomputer provides maximum use of the microcomputers already available throughout Headquarters Marine Corps. Since most of the systems already used in the Marine Corps are IBM PC's, XT's or compatible systems, this was selected as the standard hardware design capability. The system was developed on a Zenith-150 microcomputer with 320K bytes of random access memory, an 8088 microprocessor, and two floppy disk drives. This hardware configuration is totally IBM-compatible.

The system was developed on floppy disks and requires two 5 1/4" double-sided, double density disks for storage. These disks have room for expanding the number of reports or text fields used. If a hard disk is used, then this limited disk space is no longer a problem. A minimum of 256K bytes of memory is required to run dBASE III.

2. Software

During the database management system selection process for the Personnel Monitoring Database System (PMDS), several different systems were considered--dBASE II, dBASE III, and Knowledgeman. dBASE III by ASHTON-TATE was selected based on its versatility, ease of use, relational capabilities and wide availability throughout the Marine Corps.

dBASE III provides abundant power to answer unanticipated queries using the dBASE language. This database package allows up to 1 billion records with a maximum of 128 fields. Additionally, dBASE III allows 15 open files at one time and 256 active memory variables. It is evident that the limiting constraint in this application is hardware rather than the software capabilities.

3. System User

PMDS is designed mainly to be used by the ADP Occupational Field Sponsor for the Marine Corps. This section monitors all ADP personnel in the Marine Corps regardless of rank. Marines in the ADP occupational field routinely talk to this section when discussing future assignments. Therefore, providing the Marine's current record on a screen in real-time will assist the monitor when discussing future assignment possibilities. The two main questions that are asked are: "What jobs am I qualified to fill?" and "What officers are qualified and eligible to fill a certain vacant billet?"

PMDS has been developed primarily to answer these questions for the Occupational Field Sponsor. The Monitor sections and Special Education sections can also be assisted by PMDS. For the time being this system is limited to ADP officers only. After this prototype system has been tested in the field, it can then be expanded to other occupational areas.

4. Scope

Developing PMDS as a prototype restricted the scope of the design for better control. The target group was limited to data processing officers within the Marine Corps. This required that every officer in the database had previously received some data processing training, as identified in one of the officer's military occupational specialities. Feasibility of the decision support concept in the assignment process can be determined from this data of nearly 460 officers. As monitoring continues, the scope can then be expanded if appropriate to include ADP enlisted Marines and other occupational specialities.

5. Decision Criteria

There are over 30 different decision criteria used when selecting an officer for reassignment. Many of these criteria have been included as fields in PMDS. Refer to Chapter II and Appendix A for more details on each of these criteria.

B. DESIGN DEVELOPMENT

1. Preliminary Design

All available information on the mainframe personnel database for ADP officers and billet assignments was gathered and reviewed. From over 500 fields available on each officer, 32 were selected as providing the essential information required by the Occupational Field Sponsor when recommending personnel to be transferred. The main body of the database and decision matrix is developed around these selected fields.

A top-down development approach was used to provide horizontal control while developing the system. The areas of concern logically divide into two distinct areas: Personnel and Duty Assignments. Due to frequency of use and maintainability of each database, these two distinct areas were again divided in half. These four databases were created as the hub of PMDS.

Several system requirements were enforced to support data integrity and ease of use:

a. Not allowing duplicate records to be added to the database.

b. Checking for no record found in the database.

c. Providing limited editing capability as a field is updated.

d. Providing the user with the ability to route a report to the screen or printer.

e. Providing the user with the ability to easily switch tasks and databases.

2. Detailed Design

After decomposing the decision criteria into four databases and determining the system requirements, a menu driven detailed design was developed. Again a top-down structured modular approach was used throughout the entire design, coding and testing stages of development. The structured modular design was selected to provide the highest amount of modular cohesion and the lowest amount of modular coupling.

Modular cohesion is a measure of the functional strength of a module. Therefore, a totally cohesive module should do only one thing. Modular coupling is a measure of the interdependence between the modules. A module that is totally coupled will have little, if any, interconnection with the other modules in the system. These concepts were used as procedural guidelines during the design and coding phases of development.

The four database files that make up PMDS are OFFICERS, CURRJOBS, STATION, and MCCDESC. The OFFICERS database has data elements which are strictly related to the personal information about the officer and his job qualifications. The military identification number (MID) is used as the key for this database since it is a unique number. The MID is also known as the social security number. Throughout the entire system this number is edited to allow only numeric data as input.

The CURRJOBS database also uses the MID as the key field and contains data elements that relate information about the officer and his current job. These data elements were separated from the OFFICERS database elements to reduce the size of the OFFICERS database and provide separation for maintaining the database. The OFFICERS and CURRJOBS databases are joined together by the common key MID fields. This database also takes advantage of the memo text field capability of dBASE III where the monitor can write notes highlighting information about the officer in the officer's record without creating additional database overhead. This concept utilizes a separate text file which is called only when notes need to be updated or reviewed. This feature of the system can be used to replace the notes now on index cards.

The STATION database contains data elements which represent all ADP jobs in the Marine Corps. The key field for this database is the table of organization line number (TOLINENO) which is a combination of two fields, the table of organization number and the line number. These fields were combined into one field to produce a unique key that would identify a specific job assignment at a particular duty station. The STATION database is joined to the CURRJOBS database by the key field TOLINENO. Therefore, officers in a specific job can be matched from the officer to the job or from the job back to the officer. The MCC field will join this database with the MCCDESC database.

The MCCDESC database could very easily have been combined with the STATION database to make just one duty station and description database. However, when combined the MCCDESC database fields (mcc description and geographical location) are only used upon request whereas the remaining STATION database fields are utilized routinely. This causes a large amount of unnecessary overhead when the databases are combined, hence separation was deemed more efficient.

Both the STATION and MCCDESC databases have a memo text field so the monitor can store particular information about the billet or the monitor command code. These memo fields use 10 bytes in the database file and can hold up to 4000 bytes of information per record in the text file. Monitor command code (MCC) is the key field for the MCCDESC database and provides a joining link to the STATION and CURRJOBS databases. Figure 3.1 shows a Bachman diagram of PMDS.

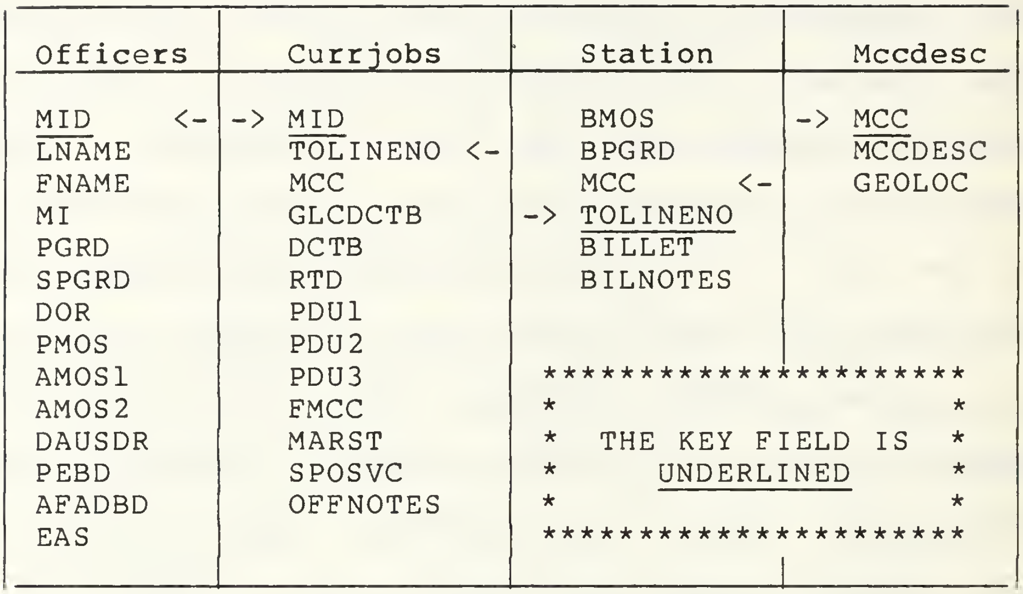

Figure 3.1 Personnel Monitoring System Bachman Diagram

C. SYSTEM MAINTENANCE

1. Mainframe Download

The least time consuming method of updating the four databases would be to download directly from the Headquarters Master File (HMF). Although currently this method has not been formally tested at Headquarters Marine Corps, some research and trial runs have been successfully completed. The trial runs have been made from the Naval Postgraduate School mainframe computer to a remote Zenith-150 computer using mainframe FOCUS to download the data files into the dBASE III structural format. This technique basically overlays data in the personnel monitoring databases with the most current mainframe master file.

2. User Update

PMDS must provide the user the opportunity to keep the system current. The user may add new records, update, delete or review existing records in all four databases. As discussed earlier, the modular system design enables the user to switch tasks or databases at will and create reports during any part of the updating process. The database structural design was selected to assist in this updating, thus combining commonly updated fields within the same databases and within the same logical area.

D. DESIGN FEATURES

1. No Record Found

During the update, delete and review procedures an existing record must be identified by the user for corrective action to take place. In all four databases, after an existing record has been identified by the user, the system will search an indexed file looking for a match of the key fields. If for some reason, the record is not found, the user will be notified that the desired record is not in the database. The user will then be given an opportunity to reenter the record identifier or change tasks.

2. Duplicate Record

At some point the user will want to increase the number of records in the database. This procedure is accomplished by adding a new record to the file. The user will be asked to input the key information for the record that is going to be added. The current database is then searched looking for that key identifier. If no record with the identifier is found, then the record is added to the current database. However, if the record with the identifier is found, then the user is notified that the new record is a duplicate of an existing record. The existing record is displayed for the user who can then reenter the record identifier or change tasks.

3. Input Editing

To protect the user from input errors besides checking for no records found and duplicate records, a limited field editing capability is provided to reduce input errors. Each field has been given an authorized field picture which rejects invalid input entry. Figure 3.2 shows the field pictures used in the system. Any input character outside this picture will not be accepted.

The picture editing shown in Figure 3.2 allows the following editing capabilities:

a. 9's - Allows only digits for character data.

b. #'s - Allows only digits, blanks and signs.

c. A's - Allows only letters.

d. N's - Allows letters and digits.

e. !'s - Converts letters to uppercase and has no effect on other characters.

f. Memo - Information in this field will be placed in a text file outside of the database. There is no restriction of input data entered in this field up to 4000 characters.

DATABASE	FIELD	PICTURE
OFF//CUR	MID	999999999
OFFICERS	LNAME	!!!!!!!!!!!!!!!!!!
OFFICERS	FNAME	!!!!!!!!!!!!!
OFFICERS	MI	!
OFFICERS	PGRD	A9!
OFFICERS	SPGRD	A9!
OFFICERS	DOR	999999
OFFICERS	PMOS	9999
OFFICERS	AMOS1	####
OFFICERS	AMOS2	####
OFFICERS	DAUSDR	#####9
OFFICERS	PEBD	999999
OFFICERS	AFADBD	999999
OFFICERS	EAS	999999
CUR//STA	TOLINENO	9999!9999!
CU/ST/MC	MCC	NNN
CURRJOBS	GLCDCTB	9999
CURRJOBS	DCTB	999999
CURRJOBS	RTD	#####9
CURRJOBS	PDU1	!!!
CURRJOBS	PDU2	!!!
CURRJOBS	PDU3	!!!
CURRJOBS	FMCC	!!!
CURRJOBS	MARST	A
CURRJOBS	SPOSVC	N
CURRJOBS	OFFNOTES	MEMO FIELD
STATION	BMOS	9999
STATION	BPGRD	A!
STATION	BILLET	!!!!!!!!!!!!!!!!!!!!
STATION	BILNOTES	MEMO FIELD
MCCDESC	MCCDESC	MEMO FIELD
MCCDESC	GEOLOC	!!!!!!!!!!

Figure 3.2 System Input Field Editing

4. File Integrity

After loading the databases with current data it is important to maintain data integrity. When information is modified in one file, all related files must also be modified. To assist in this procedure, the system has been designed to automatically add current job information when a new officer is added to the OFFICERS database. Similiarly, when a record is deleted from the OFFICERS database, it will also automatically be deleted from the CURRJOBS database.

5. System Speed

To help decrease the system retrieval time, database indexes have been used on all key fields within the database. This increases the storage overhead, however, it reduces the data retrieval time when searching for records indexed by the key. The system is designed to update all indexes automatically as the files are being updated.

E. SYSTEM LAYERING

PMDS is incorporated within several layers of system control. Figure 3.3 shows the system layering used in controlling PMDS. The MS-DOS operating system is the lowest layer. The next layer is the dBASE III database system. The PMDS is written totally in the dBASE III query language.

PMDS also is broken into several layers to control the structured modules. The first system layer is the control layer which displays the title screen and the main menu for the system. From the main menu layer five controlling branch layers are used to monitor activity within each of the four databases and the report process. These controlling layers all return to the main menu, when all database activity is complete. Below the database controlling layers are the modules which allow adding, updating, deleting and reviewing database records. This entire process is transparent to the user during system operation, despite the fact that there are several operating and controlling system layers before the program modules are reached.

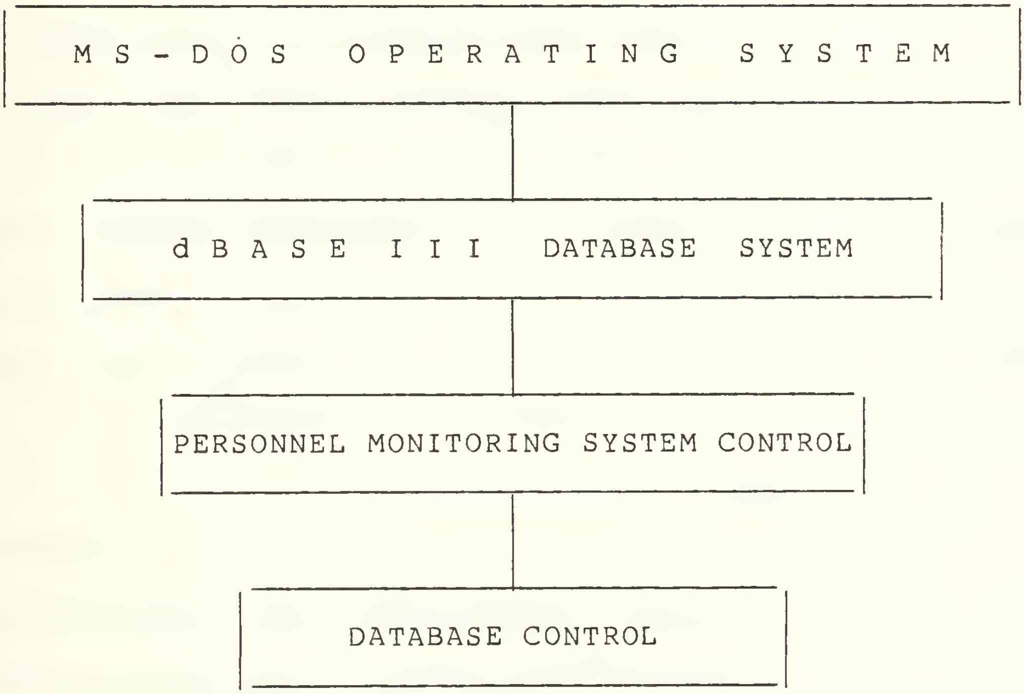
MS-DOS OPERATING SYSTEM
dBASE III DATABASE SYSTEM
PERSONNEL MONITORING SYSTEM CONTROL
DATABASE CONTROL

Figure 3.3 Personnel Monitoring System Control Layers

F. SYSTEM CODING AND TESTING

1. Module Coding

PMDS was coded using the dBASE III query language for all programs, screen formats and report forms. Modules were coded in a structured top-down approach using the breadth-first technique. Each layer was coded and integrated into the module which initiated the calling process. After all control modules were coded, the depth-first technique was used to code and test each database. The report modules were the last modules to be coded and tested.

As each module was completed, it was tested through actual runs from the top-down until the end of the hierarchical chain was reached. When all four databases were coded and tested for database maintenance, selected report modules were created. Detailed documentation was used in each program module to assist the programmer conducting any future corrective maintenance.

2. Test Data

A large amount of time was needed to actually load the officers, billet assignments and duty stations data that would be used in the system. The final test was made with data that was current as of July 1985. The OFFICERS and CURRJOBS databases have 416 records each. The STATION database has 298 billet assignment records and the MCCDESC database has 185 different monitor command codes.

3. System Testing and Integration

System testing started from completion of the first program module to the end of the last report test. All features discussed earlier were used as test beds for modifying the actual databases. By using the actual databases as the test beds, a more realistic run and response time was maintained throughout the testing process. The system was developed to be as bulletproof as possible for a prototype system.

Chapter IV will discuss each module in more detail.

IV. SYSTEM IMPLEMENTATION AND MODULE DESCRIPTIONS

A. SYSTEM IMPLEMENTATION

1. User

The Personnel Monitoring Database System (PMDS) is developed and designed for the ADP Occupational Field Sponsors at Headquarters Marine Corps. Although this prototype system is limited to the ADP occupational field, the system concept can be easily implemented for other occupational fields. This can be accomplished by simply changing the personnel in the OFFICERS and CURRJOBS databases and modifying the billet assignments in the STATION database. Additionally, the decision criteria used in the report section of the system need to be modified to reflect the new occupational fields.

This prototype system does not have a security password built-in to limit access to the databases or the system. If this feature is required in the operational version, then minor changes can be made to facilitate an extra layer of security. The terminology used on display screens and report formats is consistent with that currently used in the manual process. (See Appendix A, Data Dictionary, and Appendix H, User Manual).

2. System Loading

The databases have been loaded and used for testing purposes based on data current as of July 1985. To operationalize the system, it will be necessary to implement any changes that have occurred since that time. PMDS is totally menu driven to provide the most flexibility for the user. To start the system load dBASE III and set the default drive to B if using floppy disks, or C if using hard disk. After setting the default drive, simply type DO PMONITOR and the rest of the system is menu prompting.

Selection 6 on the main menu gives the user the capability to go directly into dBASE III control language and create new reports or perform customized queries from the updated databases. When a report is required on a periodic basis, the report format can be added to the report menu and retrieved as desired. These database tools will become more useful to the user as they get more familiar with the dBASE III query and control language. By using the QUIT command while under the dBASE III control language, control will be returned to the operating system.

PMDS provides a versatile tool which will assist the personnel monitor in reaching routine reassignment selections.

B. MODULE DESCRIPTIONS

1. General

PMDS works on three different levels: System control, Database control, and Program level. The different levels provide the user more versatility to change databases and tasks within a database than a single layered system. All modules are structured to stand alone, if necessary. There is extensive programming documentation throughout each program module to assist the designer of the operational PMDS.

2. System Control

a. PMONITOR.PRG

The PMONITOR program creates a cover screen for the user indicating that PMDS is being used. This program calls the main menu program and is never used again during that operating session. Refer to Appendix H, Screen 1 and Appendix B for more detailed information about this program.

b. MAINMENU.PRG

The MAINMENU program provides the total control between databases used in PMDS. This program calls database control programs depending on the user's selection. Control is passed to the OFFICERS, CURRJOBS, STATION, MCCDESC, or REPORTS control programs. The MAINMENU program is the controlling hub of PMDS and is the return point after completing tasks in a specific database as shown by

Figure 4.1. Refer to Appendix H, screen 2 and Appendix B for more detailed information about this program.

3. Database Control

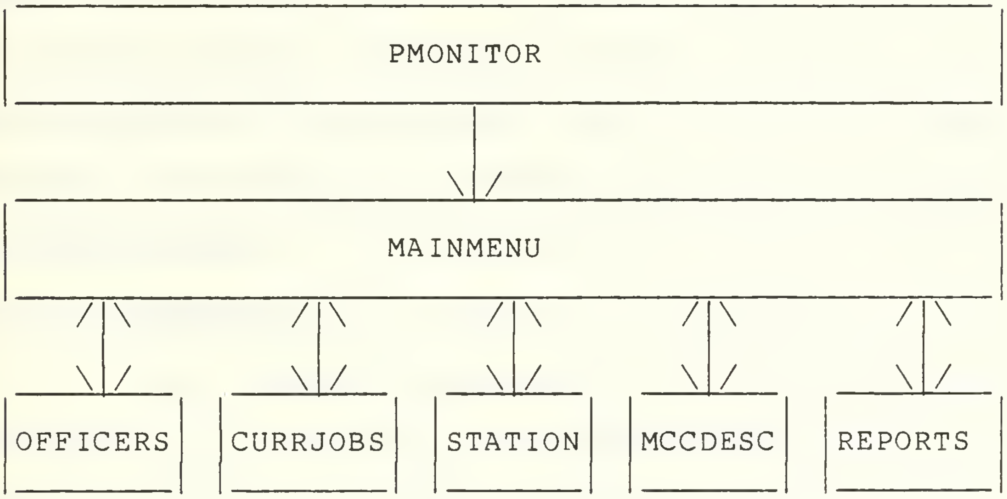

Figure 4.1 System Hierarchical Control Structure

a. OFFICCMD.PRG

The OFFICCMD program provides the user with the capability to do different tasks within the OFFICERS database. These tasks include adding new officers, and modifying, deleting, or reviewing existing officer records. After a specific task is completed within the OFFICERS database, control is returned to this control program. When all tasks are completed within the OFFICERS database, control is then returned to the MAINMENU program. Refer to Appendix H, screen 3 and Appendix C for more detailed information about this program.

b. CURRJCMD.PRG

The CURRJCMD program allows the user to update the CURRJOBS database. All other maintenance tasks for this database are automatically called when the officers are added, deleted or reviewed on the OFFICERS database. This built-in control feature helps keep the key identifiers for the OFFICERS and CURRJOBS databases identical. After the updating is complete for the CURRJOBS database, control is then returned to the MAINMENU program. Refer to Appendix H, screen 24 and Appendix D for more detailed information about this program.

c. STATICMD.PRG

The STATICMD program provides the user with the capability to do different tasks within the STATION database. These tasks include adding a new billet to a duty station, and modifying, deleting or reviewing existing billet records at a duty station. After a specific task is completed within the STATION database, control is then returned to this control program. When all tasks are completed within the STATION database, control is then returned to the MAINMENU program. Refer to Appendix H, screen 26 and Appendix E for more detailed information about this program.

d. MCCDECMD.PRG

The MCCDECMD program provides the user with the capability to do different tasks within the MCCDESC database. These tasks include adding a new monitor command code description, and modifying, deleting or reviewing existing monitor command code description records. After a specific task is completed within the MCCDESC database, control is returned to this control program. When all tasks are completed within the MCCDESC database, control is then returned to the MAINMENU program. Refer to Appendix H, screen 43 and Appendix F for more detailed information about this program.

e. REPORCMD.PRG

The REPORCMD program provides the user with the capability to do different reports. These reports will utilize the four current databases and the decision criteria discussed in Chapter II. The reports may be printed or displayed on the microcomputer monitor. After the report is completed the control is returned to this control program. After all reports are complete control is then returned to the MAINMENU program. Refer to Appendix H, screen 49, and Appendix G for more detailed information about this program.

4. Program Level

a. OFFICADD.PRG

The OFFICADD program uses the OFFICERS database indexed on military identification number (MID). This program prompts the user for the new MID and then searches the OFFICERS database to see if that MID already exists in the database. If that MID is not in the OFFICERS database, the new officer's MID is added to the OFFICERS and CURRJOBS databases. The user is then provided a formated officer's record screen with the MID already entered. Any remaining information can then be added to the OFFICERS and CURRJOBS database fields. If the MID is already in the OFFICERS database, then the user is given a display of the existing record and may add another record.

The OFFICADD program is called by the OFFICCMD program and when the user is finished adding new officer records, control is returned to the OFFICCMD program as indicated in Figure 4.2. Refer to Appendix H, screens 4,8,10-11 and Appendix C for more detailed information about this program.

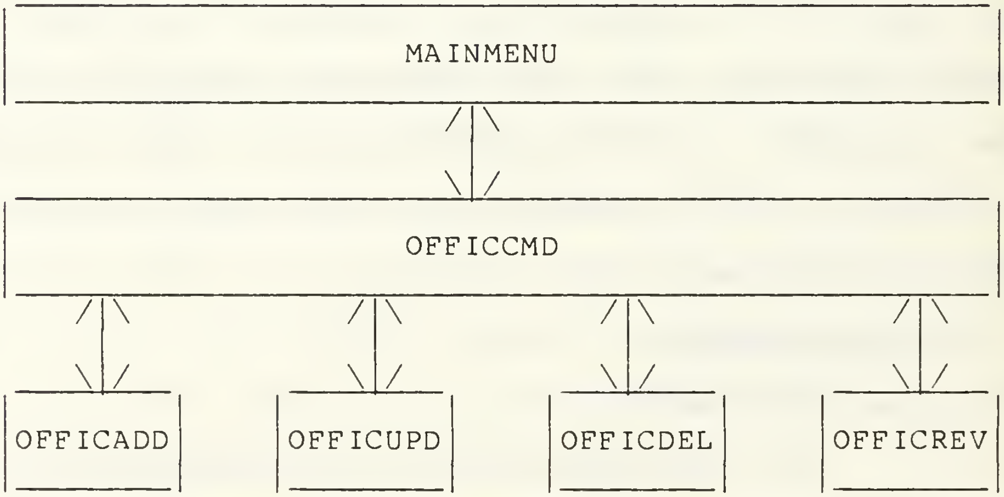

Figure 4.2 OFFICERS Database Hierarchical Control

b. OFFICUPD.PRG

The OFFICUPD program uses the OFFICERS database indexed on military identification number (MID). This program prompts the user for the MID to be updated and then searches the OFFICERS database to see if that MID exists in the database. If that MID is in the OFFICERS database the user is then provided the formated officer's record as displayed in the OFFICERS and CURRJOBS databases. The user cannot modify the MID or any information maintained in the CURRJOBS database. If the MID is not in the OFFICERS database, then the user is told that the record is not in the database and may update another record. The input data is edited to the formats shown in Figure 3.2.

The OFFICUPD program is called by the OFFICCMD program. When the user is finished updating officer records, control is returned to the OFFICCMD program as indicated in Figure 4.2. Refer to Appendix H, screens 5,12,15,19 and Appendix C for more detailed information about this program.

c. OFFICDEL.PRG

The OFFICDEL program uses the OFFICERS database indexed on military identification number (MID). This program prompts the user for the MID to be deleted and then searches the OFFICERS database to see if that MID exists in the database. If that MID is in the OFFICERS database, the user is then provided the formated officer's record as displayed in the OFFICERS and CURRJOBS databases. The user is asked if the record is to be deleted and if the answer is yes, confirmation is required. If the MID is not in the OFFICERS database, then the user is told that the record is not in the database and may delete another record. All deleted records are erased from the OFFICERS and CURRJOBS databases when exiting the OFFICDEL program.

The OFFICDEL program is called by the OFFICCMD program. When the user is finished deleting officer records, control is returned to the OFFICCMD program as indicated in Figure 4.2. Refer to Appendix H, screens 6,13,16,18-19 and Appendix C for more detailed information about this program.

d. OFFICREV.PRG

The OFFICREV program uses the OFFICERS database indexed on military identification number (MID). This program prompts the user for the MID to be reviewed and then searches the OFFICERS database to see if that MID exists in the database. If that MID is in the OFFICERS database, the user is then provided the formated officer's record as displayed in the OFFICERS and CURRJOBS databases. The user cannot modify any information maintained in the OFFICERS or CURRJOBS database. If the MID is not in the OFFICERS database, then the user is told that the record is not in the database and may review another record.

The OFFICREV program is called by the OFFICCMD program. When the user is finished reviewing officer records, control is returned to the OFFICCMD program as indicated in Figure 4.2. Refer to Appendix H, screens 7,14,19-21 and Appendix C for more detailed information about this program.

e. CURRJADD.PRG

The CURRJADD program uses the CURRJOBS database indexed on military identification number (MID). This program uses the new MID that was input during the OFFICADD program and then searches the CURRJOBS database to see if that MID already exists in the database. If that MID is not in the CURRJOBS database, the new officer's MID is then added to the CURRJOBS database. The user is then provided a formated current job record screen with the MID already entered. Any remaining information can then be added to the CURRJOBS database fields. If the MID is already in the CURRJOBS database, then the user is given a display of the existing record and may add another record.

The CURRJADD program is called by the OFFICADD program. When the user is finished adding new current job information, control is returned to the OFFICADD program as indicated in Figure 4.3. Refer to Appendix H, screens 9,26 and Appendix D for more detailed information about this program.

f. CURRJUPD.PRG

The CURRJUPD program uses the CURRJOBS database indexed on military identification number (MID). This program prompts the user for the MID to be updated and then searches the CURRJOBS database to see if that MID exists in the database. If that MID is in the CURRJOBS database, the user is then provided the formated current job record as displayed on the OFFICERS and CURRJOBS databases. The user cannot modify the MID or any information maintained in the OFFICERS database. If the MID is not in the CURRJOBS database, then the user is told that the record is not in the database and may update another record. The input data is edited to the formats shown in Figure 3.2. The monitor can input up to 4000 characters in a memo text file, which is held outside the CURRJOBS database. This file can hold miscellaneous information about the job assignment.

The CURRJUPD program is called by the CURRJCMD program. When the user is finished updating current job records, control is returned to the CURRJCMD program as indicated in Figure 4.3. Refer to Appendix H, screens 5,12,20,25 and Appendix D for more detailed information about this program.

g. CURRJDEL.PRG

The CURRJDEL program uses the CURRJOBS database indexed on military identification number (MID). This program uses the MID that was input during the OFFICDEL program and then searches the CURRJOBS database to see if that MID exists in the database. If that MID is in the CURRJOBS database, the user is then provided the formated current job record as displayed in the OFFICERS and CURRJOBS databases. The user is asked if the record is to be deleted and if the answer is yes, confirmation is required. If the MID is not in the CURRJOBS database, the user is notified that no record is found and is prompted to delete another record. All deleted records are erased from the CURRJOBS database when exiting the OFFICDEL program.

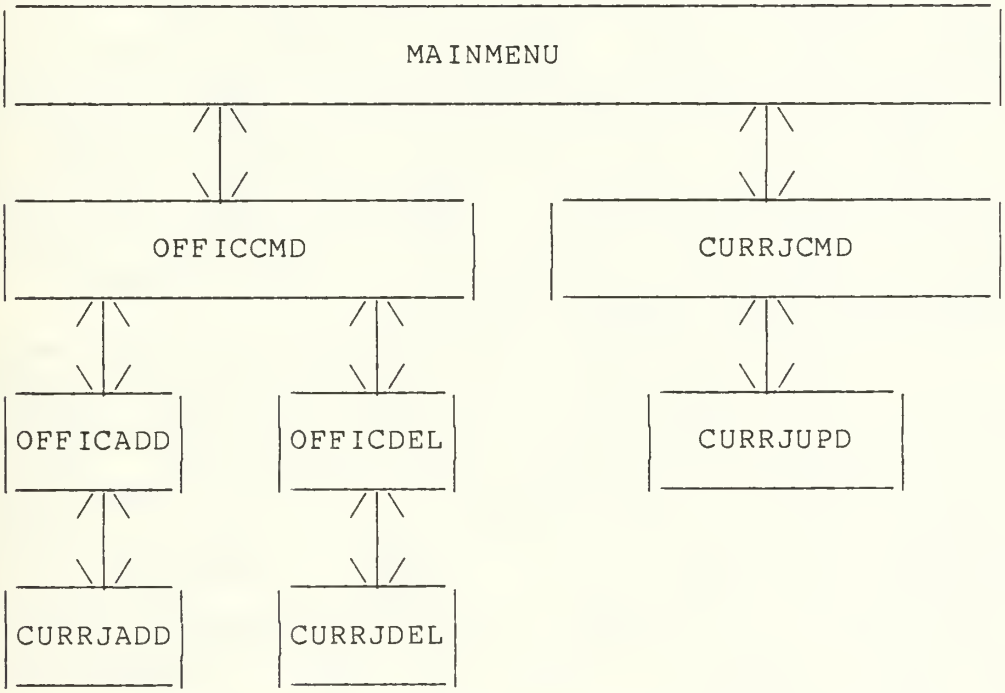

Figure 4.3 CURRJOBS Database Hierarchical Control

The CURRJDEL program is called by the OFFICDEL program. When the user is finished deleting current job records, control is returned to the OFFICDEL program as indicated in Figure 4.3. Refer to Appendix H, screens 17,20 and Appendix D for more detailed information about this program.

h. STATIADD.PRG

The STATIADD program uses the STATION database indexed on table of organization line number (TOLINENO). This program prompts the user for the new TOLINENO and then searches the STATION database to see if that TOLINENO already exists in the database. If that TOLINENO is not in the STATION database, the new station's TOLINENO is added to the STATION database. The user is provided a formated station record screen with the TOLINENO already entered. Any remaining information can then be added to the STATION database fields. If the TOLINENO is already in the STATION database, then the user is shown a display of the existing record and may add another record.

The STATIADD program is called by the STATICMD program. When the user is finished adding new station records, control is returned to the STATICMD program as indicated in Figure 4.4. Refer to Appendix H, screens 11,28,32-33 and Appendix E for more detailed information about this program.

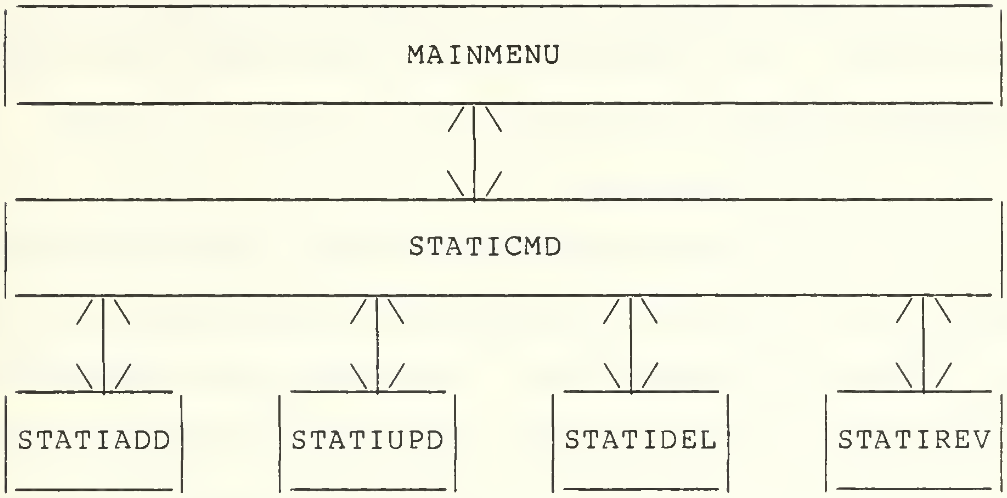

Figure 4.4 STATION Database Hierarchical Control

i. STATIUPD.PRG

The STATIUPD program uses the STATION database indexed on table of organization line number (TOLINENO). This program prompts the user for the TOLINENO to be updated and then searches the STATION database to see if that TOLINENO exists in the database. If that TOLINENO is in the STATION database, the user is then provided the formated station record as displayed in the STATION database. The user cannot modify the TOLINENO. If the TOLINENO is not in the STATION database, then the user is notified that the record is not found and may update another record. The input data is edited to the formats shown in Figure 3.2.

The STATIUPD program is called by the STATICMD program. When the user is finished updating station records, control is returned to the Staticmd program as indicated in Figure 4.4. Refer to Appendix H, screens 12,22,29,34 and Appendix E for more detailed information about this program.

j. STATIDEL.PRG

The STATIDEL program uses the STATION database indexed on table of organization line number (TOLINENO). This program prompts the user for the TOLINENO to be deleted and then searches the STATION database to see if that TOLINENO exists in the database. If that TOLINENO is in the STATION database, the user is then provided the formated station record as displayed in the STATION database. The user is asked if the record is to be deleted and if the answer is yes, confirmation is required. If the TOLINENO is not in the STATION database, then the user is told that the record is not found and may delete another record. All deleted records are erased from the STATION database when exiting the STATIDEL program.

The STATIDEL program is called by the STATICMD program. When the user is finished deleting station records, control is returned to the STATICMD program as indicated in Figure 4.4. Refer to Appendix H, screens 13,22,30,37 and Appendix E for more detailed information about this program.

k. STATIREV.PRG

The STATIREV program uses the STATION database indexed on table of organization line number (TOLINENO).

This program prompts the user for the TOLINENO to be reviewed and then searches the STATION database to see if that TOLINENO exists in the database. If that TOLINENO is in the STATION database, the user is then provided the formated station record as displayed in the STATION database. The user cannot modify any information maintained in the STATION database. If the TOLINENO is not in the STATION database, then the user is told that the record is not found and may review another record.

The STATIREV program is called by the STATICMD program. When the user is finished reviewing station records, control is returned to the STATICMD program as indicated in Figure 4.4. Refer to Appendix H, screens 14,22,31,38 and Appendix E for more detailed information about this program.

l. MCCDEADD.PRG

The MCCDEADD program uses the MCCDESC database indexed on monitor command code (MCC). This program prompts the user for the new MCC and then searches the MCCDESC database to see if that MCC already exists in the database. If that MCC is not in the MCCDESC database, the new command MCC is added to the MCCDESC database. The user is provided a formated command record screen with the MCC already entered. Any remaining information can then be added to the MCCDESC database fields. If the MCC is already in the MCCDESC database, then the user is shown a display of the existing record and may add another record.

The MCCDEADD program is called by the MCCDECMD program. When the user is finished adding new command records, control is returned to the MCCDECMD program as indicated in Figure 4.5. Refer to Appendix H, screens 11,39,44-45 and Appendix F for more detailed information about this program.

m. MCCDEUPD.PRG

The MCCDEUPD program uses the MCCDESC database indexed on monitor command code (MCC). This program prompts the user for the MCC to be updated and then searches the MCCDESC database to see if that MCC exists in the database. If that MCC is in the MCCDESC database, the user is then provided the formated command record as displayed in the MCCDESC database. The user cannot modify the MCC. If the MCC is not in the MCCDESC database, then the user is notified that the record is not found and may update another record. The input data is edited to the formats shown in Figure 3.2.

The MCCDEUPD program is called by the MCCDECMD program. When the user is finished updating command records, control is returned to the MCCDECMD program as indicated in Figure 4.5. Refer to Appendix H, screens 12,23,40,46 and Appendix F for more detailed information about this program.

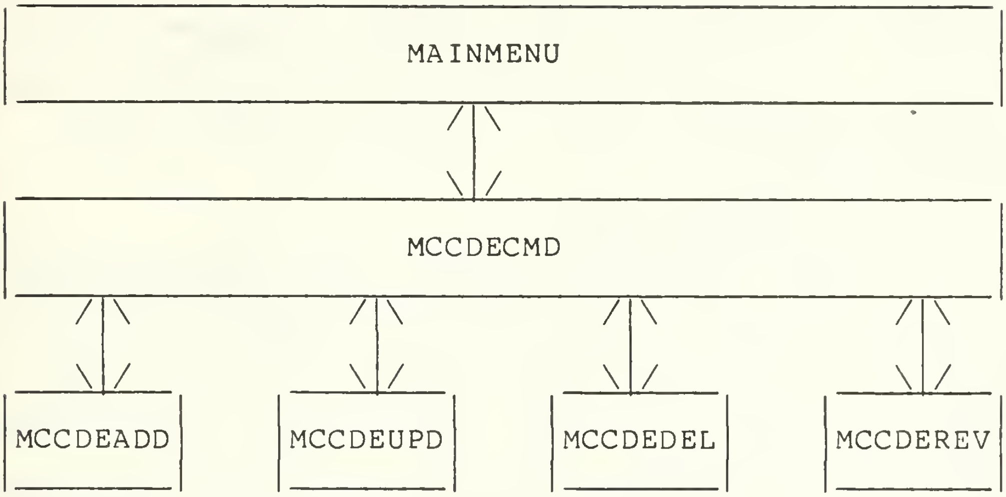

Figure 4.5 MCCDESC Database Hierarchical Control

n. MCCDEDEL.PRG

The MCCDEDEL program uses the MCCDESC database indexed on monitor command code (MCC). This program prompts the user for the MCC to be deleted and then searches the MCCDESC database to see if that MCC exists in the database. If that MCC is in the MCCDESC database, the user is then provided the formated command record as displayed in the MCCDESC database. The user is asked if he wants to delete the record and if the answer is yes, confirmation is required. If the MCC is not in the MCCDESC database, then the user is told that the record is not found and may delete another record. All deleted records are erased from the MCCDESC database when exiting the MCCDEDEL program.

The MCCDEDEL program is called by the MCCDECMD program. When the user is finished deleting command records, control is returned to the MCCDECMD program as indicated in Figure 4.5. Refer to Appendix H, screens 13,23,41,47 and Appendix F for more detailed information about this program.

o. MCCDEREV.PRG

The MCCDEREV program uses the MCCDESC database indexed on monitor command code (MCC). This program prompts the user for the MCC to be reviewed and then searches the MCCDESC database to see if that MCC exists in the database. If that MCC is in the MCCDESC database, the user is then provided the formated command record as displayed in the MCCDESC database. The user cannot modify any information maintained in the MCCDESC database. If the MCC is not in the MCCDESC database, then the user is told that the record is not found and may review another record.

The MCCDEREV program is called by the MCCDECMD program. When the user is finished reviewing command records, control is returned to the MCCDECMD program as indicated in Figure 4.5. Refer to Appendix H, screens 14,23,42,48 and Appendix F for more detailed information about this program.

p. REPQLJOB.PRG

The REPQLJOB program uses the OFFICERS database indexed on military identification number and STATION database indexed on billet pay grade. This program produces a report of billet assignments that an officer is qualified to fill. Initially the monitor enters the military identification number of an officer. The program then locates this officer in the OFFICERS database and pulls selected qualifying information from the OFFICERS database. Based on the officer's military pay grade and military occupational specialities, all billet assignments that the officer is qualified to fill on the STATION database are selected. The monitor may view the report on the display monitor or have it printed. At the end of the report is printed the officer's name and other qualifying information.

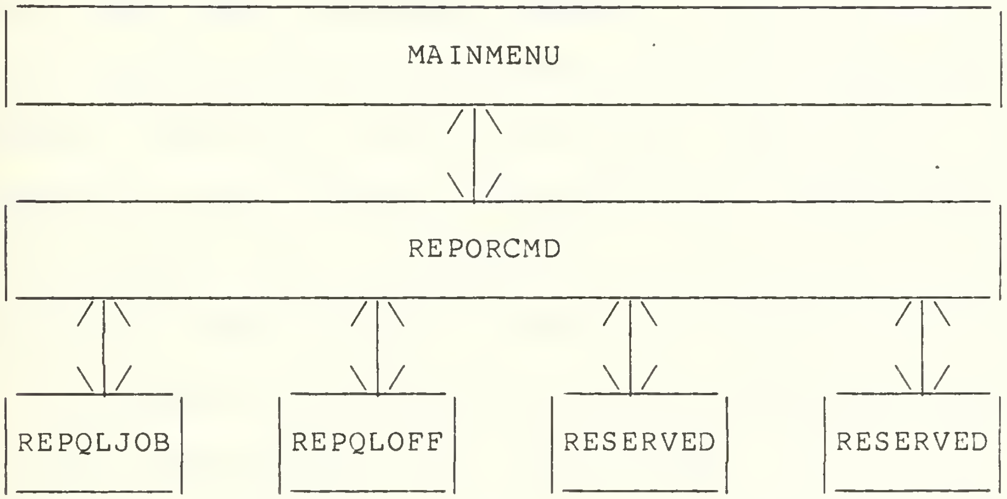

Figure 4.6 REPORTS Hierarchical Control

If the officer's MID is not located in the OFFICERS database, the user will be told no record found and may run another report. The REPQLJOB program is called by the REPORCMD program. When the report is complete control is returned to the REPORCMD program as shown in Figure 4.6. Refer to Appendix H, screens 50, report 1, and Appendix G for more detailed information about this program or the report format.

q. REPQLOFF.PRG

The REPQLOFF program uses the OFFICERS database indexed on last name, first name, middle initial and STATION database indexed on table of organization line number. This program produces a report of officers that are qualified for a particular billet assignment. Initially the monitor enters the table of organization line number of specific billet assignment. The program then locates this billet in the STATION database and pulls selected qualifying information from the STATION database. Based on the billet pay grade and billet military occupational specialities, all qualified officers are selected. The monitor may view the report on the display monitor or have it printed. At the end of the report is printed the billet assignment and other qualifying information.

If the table of organization line number (TOLINENO) is not located in the STATION database, the user will be told no record found and may run another report. The REPQLOFF program is called by the REPORCMD program. When the report is complete control is returned to the REPORCMD program as shown in Figure 4.6. Refer to Appendix

H, screens 51, report 2, and Appendix G for more detailed information about this program or the report format.

Chapter V will give the conclusions and summarize future personnel monitoring system upgrades required to bring it into total operational use throughout the Armed Forces of America.

V. FUTURE PMDS UPGRADES AND CONCLUSIONS

A. FUTURE PMDS UPGRADES

1. Occupational Field Sponsor

The Personnel Management Database System (PMDS) as shown in this thesis is a prototype to be used by the Occupational Field Sponsors at Headquarters Marine Corps. This prototype provides the database maintenance and gives the user the ability to match the accepted command job level reports. These reports show the officers that are qualified to fill a job and the jobs that an officer is qualified to fill.

The next version of PMDS will provide the user with priority command level reports. These reports will give the user only eligible qualified officers that can fill a job assignment. The difference is that an officer may be qualified to fill a billet, however, if he has been at his current assignment for less than two years, he is not eligible to be transferred. Additionally, in this version, the report will show officers who have the current billet pay grade or one pay grade less. Available job assignments will also be determined based on the date the current officer's tour began. This will help the user plan for future reassignment. The next version will use additional decision criteria during the selection process.

2. Automatic Downloading

The prototype PMDS is upgraded by the Occupational Field Sponsor as personnel changes occur. In future versions of PMDS, downloading can be done directly off the Headquarters Master File (HMF). A dBASE III structure can be created from the current data on the HMF file. This skeleton dBASE III structure will then overlay information on the PMDS databases as desired. This change will require some initial conversion programs to be written, however, in the long run, this will facilitate the upgrading of personnel records.

3. Other Users

After version 1 is implemented along with any other modifications desired from using the prototype PMDS, other users can be included. The first user to be added should be the enlisted ADP Marines. This group of Marines would add an additional 1600 Marines to PMDS. The only modifications required are the pay grade and MOS values used in the decision criteria.

The next users that can be added are the more technical military occupational specialities such as the 2600 Communications MOS. This process can be continued until all personnel throughout the Marine Corps are added to PMDS. Finally, these same concepts can be duplicated for each of the Armed Forces by modifying only the decision criteria that differ between the services. PMDS will provide automated assistance for the Personnel Monitors.

B. CONCLUSIONS

The goals of this thesis were to analyze the personnel monitoring decision process and automate the decision criteria used in the manual process, while utilizing currently available microcomputer assets. The main purpose was to give the Occupational Field Sponsor real-time access to personnel monitoring data while discussing future reassignment options with the Marine.

These goals have been achieved by the PMDS. Although PMDS is a prototype it is also operational. Improvements in this prototype will enhance PMDS for future operational use throughout the Armed Forces.

As with any new system, improvements may be recommended by those who will be using the system on a daily basis. These suggestions are highly encouraged to produce a system that meets the user's requirements. I will personally be reviewing the latest versions of PMDS to continually improve its decision support capabilities. Feedback is requested from all users and recommendations can be sent to:

Major David L. Horton, USMC
Chief Data and Graphic Systems Department
Marine Corps Institute
P.O. Bob 1775
Arlington, Virginia 22222-0001

APPENDIX A

DATA DICTIONARY

The data dictionary is broken into three areas--file structure, field/database matrix, and field description. The purpose of this appendix is to provide the user with the system specifications and built-in constraints.

A. FILE STRUCTURE

1. OFFICERS.DBF

Field	Name	Type	Width	
1	MID	Character	10	
2	LNAME	Character	18	
3	FNAME	Character	13	
4	MI	Character	1	
5	PGRD	Character	3	
6	SPGRD	Character	3	
7	DOR	Character	6	
8	PMOS	Character	4	
9	AMOS1	Character	4	
10	AMOS2	Character	4	
11	DAUSDR	Character	6	
12	PEBD	Character	6	
13	AFADBD	Character	6	
14	EAS	Character	6	** Total 91 **

2. CURRJOBS.DBF

Field	Name	Type	Width	
1	MID	Character	10	
2	TOLINENO	Character	10	
3	MCC	Character	3	
4	GLCDCTB	Character	4	
5	DCTB	Character	6	
6	RTD	Character	6	
7	PDU1	Character	3	
8	PDU2	Character	3	
9	PDU3	Character	3	
10	FMCC	Character	3	
11	MARST	Character	1	
12	SPOSVC	Character	1	
13	OFFNOTES	Memo	10	** Total 64 **

3. STATION.DBF

Field	Name	Type	Width	
1	BMOS	Character	4	
2	BPGRD	Character	2	
3	MCC	Character	3	
4	TOLINENO	Character	10	
5	BILLET	Character	20	
6	BILNOTES	Memo	10	** Total 50 **

4. MCCDESC.DBF

Field	Name	Type	Width	
1	MCC	Character	3	
2	MCCDESC	Memo	10	
3	GEOLOC	Character	10	** Total 24 **

B. FIELD/DATABASE MATRIX (ALPHABETIC ORDER)

Field Name	OFFICERS	CURRJOBS	STATION	MCCDESC
AFADBD	X			
AMOS1	X			
AMOS2	X			
BILLET			X	
BILNOTES			X	
BMOS			X	
BPGRD			X	
DAUSDR	X			
DCTB		X		
DOR	X			
EAS	X			
FNAME	X			
FMCC		X		
GEOLOC				X
GLCDCTB		X		
LNAME	X			
MARST		X		
MCC		X	X	X
MCCDESC				X
MI	X			
MID	X	X		
OFFNOTES		X		
PDU1		X		
PDU2		X		
PDU3		X		
PEBD	X			
PGRD	X			
PMOS	X			
RTD				
SPGRD	X			
SPOSVC		X		
TOLINENO		X	X	

C. FIELD DESCRIPTION, CONSTRAINTS, AND RELATIONSHIPS

1. AFADBD - (Armed Forces Active Duty Base Date)

Description: For retirement purposes this is the date used to determine active duty service time. Example: 690313.

Constraints: This is a date field in the format - year (00-99), month (01-12), date (01-31). This date should not be earlier than the Pay Entry Base Date (PEBD).

Relationships: Every officer will have an AFADBD. It is possible for several officers to have the same AFADBD. This date is used to determine if and when the officer is eligible for retirement.

2. AMOS1 - (Additional Military Occupational Specialty1)

Description: Technically qualified to perform the responsibilities required by the occupational specialty, in addition to those indicated by the Primary Military Occupational Specialty (PMOS). The first two digits represent the occupation and the last two digits represent the specialty. Example: 9646 or 9648.

Constraints: This field is normally only numeric. The lowest occupation is 01xx and the highest is 99xx. This field can be blank, indicating no additional occupational specialty. This field will not equal PMOS or AMOS2 for the same officer.

Relationships: Each officer may or may not have an AMOS1. This field could be equivalent to Billet Military

Occupational Specialty (BMOS). The field will be compared against BMOS to locate qualified officers.

3. AMOS2 - (Additional Military Occupational Specialty2)

Description: Technically qualified to perform the responsibilities required by the occupational specialty, in addition to those indicated by the PMOS and AMOS1. The first two digits represent the occupation and the last two digits represent the specialty. Example: 9646 or 9648.

Constraints: This field is normally only numeric. The lowest occupation is 01xx and the highest is 99xx. This field can be blank indicating no additional occupational specialty2. This field will not equal PMOS or AMOS1 for the same officer.

Relationships: Each officer may or may not have an AMOS2. This field could be equivalent to BMOS. The field will be compared against BMOS to locate qualified officers. There should be values in the PMOS and AMOS1 fields before there is a value in the AMOS2 field.

4. BILLET - (Job Description)

Description: This field provides the job title for a specific billet number located at a certain Monitor Command Code (MCC). Example: Director, 5th DFASC.

Constraints: This is an alphanumeric field. The billet will be a short description of the job title as normally used in the officer's fitness report.

Relationships: Each billet will have a billet description. Each officer will be in a billet as indicated by the T/O line number. Each duty station could have several billets that have identical descriptions. In addition, the billet description at one duty station could be identical to the billet description at a different duty station.

5. BILNOTES - (Billet Notes)

Description: This field provides the Occupational Field Sponsor the opportunity to include any specific information about the billet which may be pertinent in evaluating the next officer assigned to the billet.

Constraints: This is an alphanumeric field which is held in a separate text database. The user has basically unlimited potential for this field not exceeding 4000 characters.

Relationships: This field contains comments related to the specific T/O line number identifying the particular billet.

6. BMOS - (Billet Military Occupational Specialty)

Description: This field indicates the qualified Military Occupational Specialty required by the billet assignment. The first two digits represent the occupation and the last two digits represent the specialty. Example: 4002 or 9648.

Constraints: This field is normally only numeric. The lowest billet occupation for this system is 01xx and the highest is 99xx. This field could be equivalent to the

PMOS, AMOS1 or AMOS2 fields.

Relationships: Each officer will have a BMOS as indicated by his current billet assignment. Usually the BMOS will be the same as the officer's PMOS, AMOS1 or AMOS2. However, this is not mandatory for special staff billets such as 9910 billets. There are many billet assignments which have the same BMOS, however, each billet assignment will have only one BMOS. In addition, an officer may be qualified for several BMOS's, however, he can only be currently filling one BMOS at a time.

7. BPGRD - (Billet Pay Grade)

Description: This field indicates the required pay grade for the billet assignment. In the first space, O represents officer and W represents warrant officer. The second space indicates the pay grade. Example: O4 or WO.

Constraints: This field is alphanumeric and should not be blank. The first space can only be O or W, the second space can be O for warrant officer billets or 2-6 for Officer billets.

Relationships: Each billet will have a BPGRD. A duty station can have many billets with the same BPGRD. An officer can currently only be filling one BPGRD. The PGRD of the officer currently filling a billet could be equal to the BPGRD or plus/minus one pay grade. This field will be used to look for qualified officers for a specific billet. Normally an officer will not be assigned a billet that has a BPGRD less than his current PGRD. However, the officer could be assigned a billet that has a BPGRD one higher than his current PGRD. The BPGRD field is compared against the SPGRD and PGRD fields.

8. DAUSDR - (Date Arrived U.S. Dependents Restricted)

Description: This date is used to determine when the last time the officer was overseas or deployed without dependents. This field is sometimes called the overseas control date. Example: 820811 or 0.

Constraints: This is a date field in the format - year (00-99), month (01-12), date (01-31). This field can have 0 indicating that the officer has not been overseas. This date should not be earlier than the PEBD.

Relationships: Each officer should have a date or 0 in this field. This date will be compared to the current date, AFADBD plus some constant, and EAS. The DAUSDR will indicate when it is time for the officer to fill an overseas billet - in the next assignment, or in the future.

9. DCTB - (Date Current Tour Began)

Description: This date field is used to determine how long an officer has been assigned to a specific MCC. As long as the officer stays at the same MCC the date will remain the same, even if the job assignment within the MCC changes.

Constraints: This is a date field in the format - year (00-99), month (01-12), day (01-31). This date cannot be earlier than the GLCDCTB, but may be equal to it. This field should not be blank.

Relationships: Every officer will have a DCTB for their current job assignment. This field will be compared to the proposed transfer date before determining if the officer is eligible for reassignment to another duty station. In general, the minimum time on station is two years, with three or more years on station being preferred. This field could be compared to GLCDCTB.

10. DOR - (Date Of Rank)

Description: This date is used to determine seniority among officers of the same pay grade. This date represents the day the officer was promoted to his current pay grade. Example: 830101.

Constraints: This date field is in the format - year (00-99), month (01-12), day (01-31). This field should not be blank.

Relationships: Each officer will have a DOR for their current pay grade. Many officers could have the same DOR for the same pay grade. This field will mainly be used to determine who are the most senior officers for each pay grade. Additionally, this field could be used to project which officers will be eligible for promotion to the next pay grade.

11. EAS - (Expiration of Active Service)

Description: This date is used to determine when the officer's current active service agreement expires. This date is used for new officers indicating their initial service contract agreement, or by officers that have a reserve commission. Officers that are past their initial service contract agreement and have a regular commission will have an EAS of 0. Example: 870317 or 0.

Constraints: This is a date field in the format - year (00-99), month (01-12), day (01-31). This field should have a date or 0 and should not be blank.

Relationships: Each officer will have a date or 0 represented in this field. This date will be compared to the proposed transfer date plus twelve months before the officer is assigned to a new duty station. This field should be updated when the service status changes.

12. FNAME - (First Name)

Description: This field indicates the officer's first name and will be used mainly for identification.

Constraints: The first name field is an alphabetic field and is limited to 13 characters or less.

Relationships: Every officer will have a first name. It is possible that more than one officer will have the same first name.

13. FMCC - (Future Monitor Command Code)

Description: This field indicates that the officer's next duty station has been selected, as shown by the future MCC. Of course, the future MCC is only projected and could be subject to change, if circumstances warrant. Example: 009 or MB1.

Constraints: This is a three position alphanumeric field. This field could be blank, indicating that the next duty station for the officer has not been selected.

Relationships: The FMCC field should be checked before qualifying the officer for the next duty station. The FMCC field will be compared with the officer's current MCC, PDU1, PDU2, and PDU3 fields. This will represent the future duty station from different points of view.

14. GEOLOC - (Geographical Location)

Description: This field is used to categorize duty stations into different geographical locations. Many times officers would rather stay on one coast or the other. This field helps separate the duty stations by these locations. Example: East Coast or Overseas.

Constraints: This is a ten position alphabetic field. The locations have been kept to a minimum: None, Any, Conus, East Coast, Mid West, West Coast, Pacific, Atlantic, Overseas. Each MCC will have an assigned geographical location.

Relationships: This field will be used to help select different billet assignments that an officer could be qualified to fill. This field will help the Occupational Field Sponsor keep in mind the desires of the officer, the cost of relocation, and the needs of the Marine Corps.

15. GLCDCTB - (Geographical Location Date Current Tour Began)

Description: This date field is used to determine how long an officer has been in one geographical location. Example: 8408.

Constraints: This is a date field in the format - year (00-99), month (01-12). This field should be equal to or less than the officer's DCTB year and month fields.

Relationships: Each officer will have a GLCDCTB. This field will be compared to the DCTB field. If this field is greater than three years from the proposed transfer date and the DCTB is greater than one year, the officer could be eligible for reassignment.

16. LNAME - (Last Name)

Description: This field indicates the officer's last name and will be used mainly for identification.

Constraints: The last name field is an alphabetic field that is limited to 18 characters or less. If the officer has a Jr. or III in his name, it will be included as part of the last name.

Relationships: Every officer will have a last name. It is possible that more than one officer will have the same last name. For total identification of an officer, the first name, middle initial and last name should be compared.

17. MARST - (Marital Status)

Description: This field indicates the officer's marital status and will mainly be used to identify married officers who have a spouse in the service.

Constraints: MARST is a one character alphabetic field. The different marital status codes are S for single, M for married, D for divorced, L for legal separation.

Relationships: Every officer should have a marital status code. In addition, it is possible for each of these categories of marital status to have dependents. This field is mainly reviewed when special billet requirements exist. Additionally, the field is used to help identify all Marine officers who have a spouse in the service.

18. MCC - (Monitor Command Code)

Description: This field indicates the duty station where an officer is currently assigned or could be assigned in the future. There may be several billets at each MCC. Example: 009 or MB1.

Constraints: This is a three character alphanumeric field. This field should not be blank. For each MCC there should be a MCC description.

Relationships: The MCC field will be compared with the officer's PDU1, PDU2, PDU3, and FMCC fields, which will indicate the duty stations where the officer would like to be assigned and the officer's projected future duty station. Each officer will have a MCC to which his current billet is assigned. More than one officer may be assigned to the same MCC. Each MCC will have only one description.

19. MCCDESC - (Monitor Command Code Description)

Description: This field provides the actual descriptive title for the duty station where the mcc is located. Example: 2nd FSSG, Camp Lejeune, NC.

Constraints: This field is a memo text field due to its variable length. The MCC description is stored in a separate text file and can be displayed by using the field name. A direct list of the file will only indicate that it is a memo field, not the field contents. The maximum field length is 4000 characters, however, the database only represents this field as 10 positions.

Relationships: Each MCC will have a MCC description. Each officer will be assigned a billet number which will come under a MCC. Several officers could be assigned to the same MCC. Each MCC description will correspond to a specific MCC and a geographical location.

20. MI - (Middle Initial)

Description: This field indicates the middle initial of the officer's name.

Constraints: This is a one character alphabetic field. This field could be left blank indicating that the officer does not have a middle initial.

Relationships: The middle initial field will be used in conjuction with the first name and last name fields to identify an officer. Several officers could have the same middle initial.

21. MID - (Military Identification)

Description: This is a unique number (Social Security Number) that specifically identifies the officer. All other data can be retrieved on an officer by using MID as the key field. Example: 0123456789.

Constraints: The MID is a ten position numeric field. This field should have a leading 0. The MID should be unique and the field should not be blank.

Relationships: Each officer will have only one MID and that field will be used to identify the officer and all related information about the officer. This is a key field which will be matched prior to updating any related information about the officer.

22. OFFNOTES - (Officer Notes)

Description: This field provides the Occupational Field Sponsor the opportunity to include any specific information about the officer which may be pertinent in evaluating the officer for the next billet assignmemnt.

Constraints: This is an alphanumeric field which is held in a separate text database. The user has basically unlimited potential for this field not exceeding 4000 characters. The database will only represent this field as 10 characters.

Relationships: This field contains comments related to the officer and his prior experience, special education, or any special skill capabilities.

23. PDU1 - (Preferred Duty 1)

Description: This field indicates the officer's first MCC duty preference for his next duty assignment as indicated on the officer's latest fitness report. Example: 009 or MB1.

Constraints: This is a three position alphanumeric field. This field should not be blank, unless the officer has never been evaluated on a fitness report. The contents of this field could be the same as PDU2, PDU3 and FMCC.

Relationships: The PDU1 is generated by the officer when semiannual fitness reports are submitted. This field is compared with the officer's current MCC and FMCC. This will indicate where the officer currently is stationed, where the officer wants to be stationed in the future, and where the officer's future duty station is projected to be. For each MCC there is only one description.

24. PDU2 - (Preferred Duty 2)

Description: This field indicates the officer's second MCC duty preference for his next duty assignment as indicated on the officer's latest fitness report. Example: 009 or MB1.

Constraints: This is a three position alphanumeric field. This field should not be blank, unless the officer has never been evaluated on a fitness report. The contents of this field could be the same as PDU1, PDU3 and FMCC.

Relationships: The PDU2 is generated by the officer when semiannual fitness reports are submitted. This field is compared with the officer's current MCC and FMCC. This will indicate where the officer currently is stationed, where the officer wants to be stationed in the future, and where the officer's future duty station is projected to be. For each MCC there is only one description.

25. PDU3 - (Preferred Duty 3)

Description: This field indicates the officer's third MCC duty preference for his next duty assignment as indicated on the officer's latest fitness report. Example: 009 or MB1.

Constraints: This is a three position alphanumeric field. This field should not be blank, unless the officer has never been evaluated on a fitness report. The contents of this field could be the same as PDU1, PDU2 and FMCC.

Relationships: The PDU3 is generated by the officer when semiannual fitness reports are submitted. This field is compared with the officer's current MCC and FMCC. This will indicate where the officer currently is stationed, where the officer wants to be stationed in the future, and where the officer's future duty station is projected to be. For each MCC there is only one description.

26. PEBD - (Pay Entry Base Date)

Description: For pay purposes, this date indicates the officer's service time. This is usually the date the officer signed his original service contract. Example: 650323.

Constraints: This is a date field in the format - year (00-99), month (01-12), day (01-31). This field should not be blank. Usually this date will be the earliest date indicated for the officer. This date could be the same as AFADBD.

Relationships: Every officer will have a PEBD. It is possible that several officers will have the same PEBD. This field is used when calculating longevity for pay purposes.

27. PGRD - (Pay Grade)

Description: This field is used to indicate the officer's current pay grade. In the first space, O represents officer and W represents Warrant Officer. The second space represents the current pay grade. The third space E indicates the officer has a least four years of enlisted active service. Example: O3E or W4.

Constraints: PGRD is a three position alphanumeric field which should not be blank. The first space can only be O or W. The second space can only be 1-6. The third space can only be E or blank. Warrant Officers and PGRD O4 and above will have the third space blank even if they have over four years enlisted service time.

Relationships: Each officer will have a PGRD. Many officers could have the same pay grade. This PGRD field will be compared to the BPGRD field when selecting an officer for a specific billet. When an officer is selected to the next pay grade, it will be indicated in the SPGRD field.

28. PMOS - (Primary Military Occupational Specialty)

Description: The Primary Military Occupational Specialty indicates the field in which the officer has received technical training. The first two digits represent the occupation and the last two digits represent the specialty. This is usually the primary job responsibility of the officer. Example: 4002 or 4010.

Constraints: PMOS is a four position numeric field. The lowest occupation is 01xx and the highest is 99xx. This field should not be blank. Additionally, this field should not equal AMOS1 or AMOS2 for the same officer.

Relationships: Each officer will have only one PMOS. However, many officers could have the same PMOS. This field, along with AMOS1 and AMOS2 fields, will be compared with BMOS when searching for a qualified officer to fill a specific billet.

29. RTD - (Rotation Tour Date)

Description: The RTD indicates when the officer will return to the continental United States (CONUS) from an overseas assignment. The date is calculated from the day the officer leaves CONUS plus one, two, or three years depending on the overseas assignment and then subtracting one day. Example: 851220.

Constraints: This is a date field in the format - year (00-99), month (01-12), day (01-31). This date should not be greater than the officer's EAS unless it is blank.

Relationships: If the officer is currently on an overseas assignment than there should be a rotation tour date, otherwise the field should be left blank. This field is mainly used with the DCTB and GLCDCTB fields to determine when an officer is eligible to be transferred. When assigning an officer to an overseas assignment, than the proposed RTD will be calculated to determine if the officer has enough service time remaining to successfully complete the overseas tour.

30. SPGRD - (Selected Pay Grade)

Description: This field indicates that the officer has been selected for the next pay grade. After selection, the new pay grade will remain in this field until the officer is promoted. Example: O2E or W3.

Constraints: This is a three position alphanumeric field. The first space should be O or W. The second space should be 1-4 for Warrant Officers and 1-6 for Officers. The last space can be E or blank. The entire field could be blank.

Relationships: This field will be compared, along with the PGRD field, against the BPGRD field when searching for a qualified officer to fill a specific billet. If this field is blank, then the PGRD field will be compared.

31. SPOSVC - (Spouse's Service)

Description: This field is used to identify the officer's spouse that is also a member of the Armed Forces and indicate the spouse's service. Example: N (for Navy).

Constraints: SPOSVC is a one position alphanumeric field. The first letter of the service is used to indicate the service name. This field will be left blank or have 0 for officers that are not married or do not have a spouse in the Armed Forces.

Relationships: This field is mainly used as additional information for the Occupational Field Sponsor. An officer that has a spouse in the service should be transferred jointly with the spouse, if at all possible, thus preventing a personal and financial hardship. Knowing the spouse's service will assist in the reassignment decision.

32. TOLINENO - (Table of Organization Line Number)

Description: Each billet will have a unique T/O line number assigned to that specific job. The first five digits indicate the Table of Organization and the last five digits indicate the specific billet line number for that T/O. Example: 3447N0135A is the T/O line number for the Info Sys Mgt Officer, H&S Co H&S Bn 2nd FSSG Camp Lejeune N.C.

Constraints: TOLINENO is a ten position alphanumeric field. This field should not be blank. It is possible to have blanks in the middle of this field which indicates that the T/O is less than five positions.

Relationships: Each officer will be assigned to a specific billet number. The officer, however, may be qualified to work at many different billet assignments. When an officer changes jobs, the new T/O line number should be updated in the CURRJOBS file. This is a key field which uniquely identifies an officer to a specific billet. It is possible for more than one officer to be assigned to the same T/O line number. However, this will only happen when there is a personnel overage at a specific duty station - such as when an incoming officer arrives before the outgoing officer departs. This field will be used to find qualified officers for each billet. In addition, it will be used to identify the officer who is currently filling a specific billet. For a specific billet assignment, required officer qualifications can be determined by using the T/O line number.

APPENDIX B

COMMAND MODULE LISTINGS

A. PMONITOR

```
* PMONITOR.PRG
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Produce the title screen for the Personnel
*              Monitoring Database System and call the main
*              menu program.
* FILE USED  : None
* CALLING    : Mainmenu.prg
*
* DATE LAST TIME MODIFIED =====> 25 OCTOBER 1985 <=====
*
* Set-up initial system configuration.
*
  SET CONSOLE ON
  SET TALK OFF
  SET BELL ON
  SET INTENSITY OFF
*
* Screen set-up.
*
  CLEAR
  @ 12,20 SAY "P E R S O N N E L     M O N I T O R I N G"
  @ 14,26 SAY "D A T A B A S E   S Y S T E M"
  @ 21,36 SAY "Written By"
  @ 23,28 SAY "David L. Horton Major USMC"
  @ 24,1  SAY ' '
  WAIT ' Push any key to start '
*
* Wait for the user to start the the monitoring system,
* then select the mainmenu program.
*
  CLEAR
  DO MAINMENU
  CLEAR ALL
  CLEAR
***********************************************************
```

B. MAINMENU

```
* MAINMENU.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Provide the user the capability of
*             maintaining all databases used in the
              personnel monitoring system.  In addition,
              the user can produce a series of reports from
              these updated databases.
* FILE USED : None
* CALLING   : Officcmd.prg, Currjcmd.prg, Staticmd.prg,
*             Mccdecmd.prg, Reporcmd.prg
*
* DATE LAST TIME MODIFIED =====> 12 NOVEMBER 1985 <=====
*
* Display the process menu to the user and wait for the
* user's choice.
*
  STORE  0  TO CHOICE
  STORE 1 TO CONTINUE
  DO WHILE CONTINUE = 1
  CLEAR
  @ 3,10  SAY "=============================="
  @ 3,40  SAY "============================="
  @ 6,18  SAY "   PERSONNEL MONITORING SYSTEM MAIN MENU   "
  @ 7,18  SAY "   -------------------------------------   "
  @10,18  SAY "      1)    Maintain OFFICERS File         "
  @11,18  SAY "      2)    Maintain CURRJOBS File         "
  @12,18  SAY "      3)    Maintain STATION  File         "
  @13,18  SAY "      4)    Maintain MCCDESC  File         "
  @14,18  SAY "      5)    Reports                        "
  @16,18  SAY "      6)    Return to dBase                "
  @17,18  SAY "      7)    Return to Operating System     "
  ?
  ?
  INPUT ' Please Enter Your Choice (1-7) ====>  ' to CHOICE
*
* Perform appropriate task based on the user's choice.
*
  DO CASE
***********************************************************
*  CASE CHOICE = 1
***********************************************************
*
* Call the officer command program.
*
  DO OFFICCMD
***********************************************************
*  CASE CHOICE = 2
***********************************************************
*
```

```
* Call the current jobs command program.
*
  DO CURRJCMD
***********************************************************
*  CASE CHOICE = 3
***********************************************************
*
* Call the station command program.
*
  DO STATICMD
***********************************************************
*  CASE CHOICE = 4
***********************************************************
*
* Call the monitor command code description command
* program.
*
  CLEAR
  @ 12,1 SAY "PLEASE INSERT PROGRAM DISK II"
  SET TALK ON
  WAIT
  SET TALK OFF
  DO MCCDECMD
***********************************************************
*  CASE CHOICE = 5
***********************************************************
*
* Call the reports command program.
*
  DO REPORCMD
***********************************************************
*  CASE CHOICE = 6
***********************************************************
*
* Return the user to dBASE system control.
*
  STORE 0 TO CONTINUE
  EXIT
***********************************************************
*  CASE CHOICE = 7
***********************************************************
*
* Return the user to the operating system control.
*
  CLEAR
  STORE 0 TO CONTINUE
  QUIT
  ENDCASE
***********************************************************
*
* Continue processing loop control check.
```

```
*
  ENDDO WHILE CONTINUE = 0
  CLEAR ALL
  CLEAR
************************************************************
```

APPENDIX C

OFFICERS MODULE LISTINGS

A. OFFICCMD

```
* OFFICCMD.PRG
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Maintain or review the officer database
*              file.
* FILE USED : None
* CALLING    : Officadd.prg, Officupd.prg, Officdel.prg,
*              Officrev.prg
* DATE LAST TIME MODIFIED =====> 25 OCTOBER 1985 <=====
*
* Display the process menu to the user and wait for the
* selection.
*
  STORE 0 TO SELECTION
  STORE 1 TO TRYAGAIN
  DO WHILE TRYAGAIN = 1
  CLEAR
  @ 3,10  SAY "=============================="
  @ 3,40  SAY "============================="
  @ 6,18  SAY "          MAINTAIN OFFICERS FILE           "
  @ 7,18  SAY "          ----------------------           "
  @10,18  SAY "   1)  ADD a new officer record            "
  @11,18  SAY "   2)  UPDATE an existing officer record   "
  @12,18  SAY "   3)  DELETE an existing officer record   "
  @13,18  SAY "   4)  REVIEW an existing officer record   "
  @15,18  SAY "   5)  RETURN to the main menu             "
  ?
  ?
  INPUT 'Enter your selection (1-5) ===> '  TO SELECTION
*
* Process routine based on the user's selection.
*
  DO CASE
**********************************************************
  CASE SELECTION = 1
**********************************************************
*
* Call the officer add program.
*
  DO OFFICADD
**********************************************************
```

```
  CASE SELECTION = 2
************************************************************
*
* Call the officer update program.
*
  DO OFFICUPD
************************************************************
  CASE SELECTION = 3
************************************************************
*
* Call the officer deletion program.
*
  DO OFFICDEL
************************************************************
  CASE SELECTION = 4
************************************************************
*
* Call officer review program.
*
  DO OFFICREV
************************************************************
  CASE SELECTION = 5
************************************************************
*
* Return to the mainmenu program.
*
  STORE 0 TO TRYAGAIN
  ENDCASE
************************************************************
  ENDDO  WHILE TRYAGAIN = 0
  CLEAR ALL
  CLEAR
  RETURN
************************************************************
```

B. OFFICADD

```
* OFFICADD.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Add new officers to the officer database
*             and current jobs database files.
* FILE USED : Officers.dbf index officmid.ndx, officnam.ndx
* CALLING   : Officadd.fmt, Officdup.fmt, Currjadd.prg
*
* DATE LAST TIME MODIFIED =====> 13 NOVEMBER 1985 <=====
*
*********************************************************
* CASE SELECTION = 1     Add A New Officer Record
*********************************************************
*
* Set up outer loop to repeat when the user wants to add
* more records.
*
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use the officers database indexed on military ID and
* wait for the user to input the military ID.
*
  USE OFFICERS INDEX OFFICMID.NDX
  CLEAR
  STORE '          ' TO MMID
  @ 12,1 SAY "Enter military ID to be added"+;
  "(i.e. 0094366065): "  GET MMID PICTURE '9999999999'
  READ
  GO TOP
  SEEK UPPER (MMID)
  CLEAR
*
* Check for duplicate record on the database.
*
  IF EOF () = .T. THEN
*
* Clear screen and set initial values for variables to
* be added to the file. The M prefix indicates memory
* variables distinguishing them from their corresponding
* database fields.
*
     STORE '                  ' TO MLNAME
     STORE '             '      TO MFNAME
     STORE ' '                  TO MMI
     STORE '   '                TO MPGRD
     STORE '   '                TO MSPGRD
     STORE '      '             TO MDOR
     STORE '    '               TO MPMOS
     STORE '    '               TO MAMOS1
     STORE '    '                TO MAMOS2
     STORE '      '              TO MDAUSDR
     STORE '      '              TO MPEBD
     STORE '      '              TO MAFADBD
     STORE '      '              TO MEAS
*
* Set-up inner loop which gives the user a chance to
* correct the entries before adding them to the file.
*
     STORE 1 TO CONTADDOF
     DO WHILE CONTADDOF = 1
*
* Using the officer add format file to produce the
* screen display.
*
     SET FORMAT TO OFFICADD.FMT
     READ
*
* Select a location at the bottom of screen and prompt
* for corrections.
*
     ACCEPT "DO YOU WISH TO MAKE ANY CORRECTIONS?"+;
     "(Y/N) ===> "  TO YN
     IF UPPER(YN)="N"
        STORE 0 TO CONTADDOF
        CLEAR
     ENDIF
     ENDDO WHILE CONTADDOF = 0
*
* If entries are correct, add them to database.
*
     USE OFFICERS INDEX OFFICMID.NDX, OFFICNAM.NDX
     APPEND BLANK
     REPLACE MID     WITH MMID
     REPLACE LNAME   WITH MLNAME
     REPLACE FNAME   WITH MFNAME
     REPLACE MI      WITH MMI
     REPLACE PGRD    WITH MPGRD
     REPLACE SPGRD   WITH MSPGRD
     REPLACE DOR     WITH MDOR
     REPLACE PMOS    WITH MPMOS
     REPLACE AMOS1   WITH MAMOS1
     REPLACE AMOS2   WITH MAMOS2
     REPLACE DAUSDR  WITH MDAUSDR
     REPLACE PEBD    WITH MPEBD
     REPLACE AFADBD  WITH MAFADBD
     REPLACE EAS     WITH MEAS
*
* Add record to current jobs database.
*
     DO CURRJADD
```

```
  ELSE
*
* Show the user the duplicate military ID record and
* wait for a response.
*
     SET TALK ON
     SET FORMAT TO OFFICDUP.FMT
     READ
     WAIT
     SET TALK OFF
     CLEAR
  ENDIF
*
* Select a location at the bottom of the screen and
* prompt for more additions.
*
  ACCEPT "ADD ANOTHER RECORD?  (Y/N) ===>"  TO YN1
  IF UPPER (YN1)="N"
     STORE 0 TO MORE
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  RETURN
***********************************************************
```

C. OFFICADD.FMT

```
* OFFICADD.FMT
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Provide the officer add format screen.
* FILE USED  : None
* CALLING    : None
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
* Set screen format for adding a new officer record.
*
  @  0,25   SAY "                             "
  @  1,25   SAY "  ADD A NEW OFFICER FORMAT   "
  @  2,25   SAY "  ------------------------   "
  @  3,25   SAY "                             "
  @  7,4    SAY "MID:"
  @  7,9    SAY MMID
  @  7,22   SAY "LNAME:" GET MLNAME  PICTURE '!!!!!!!!!!!!!!!!!!!!'
  @  7,48   SAY "FNAME:" GET MFNAME  PICTURE '!!!!!!!!!!!!!!'
  @  7,69   SAY "MI:"    GET MMI     PICTURE '!'
  @ 10,4    SAY "SPGRD:" GET MSPGRD  PICTURE 'A9!'
  @ 10,21   SAY "PGRD:"  GET MPGRD   PICTURE 'A9!'
  @ 10,36   SAY "DOR:"   GET MDOR    PICTURE '999999'
  @ 13,4    SAY "PMOS:"  GET MPMOS   PICTURE '9999'
  @ 13,21   SAY "AMOS1:" GET MAMOS1  PICTURE '####'
  @ 13,36   SAY "AMOS2:" GET MAMOS2  PICTURE '####'
  @ 16,4    SAY "DAUSDR:"GET MDAUSDR PICTURE '#####9'
  @ 16,21   SAY "PEBD:"  GET MPEBD   PICTURE '999999'
  @ 16,36   SAY "AFADBD:"GET MAFADBD PICTURE '999999'
  @ 16,53   SAY "EAS:"   GET MEAS    PICTURE '999999'
************************************************************
```

D. OFFICDUP.FMT

```
* OFFICDUP.FMT
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Provide the officer duplicate format screen.
* FILE USED  : None
* CALLING    : None
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
* Set screen format for the duplicate officer record.
*
  @  0,25  SAY "                            "
  @  1,25  SAY "  OFFICER DUPLICATE FORMAT  "
  @  2,25  SAY "  ------------------------  "
  @  3,25  SAY "                            "
  @  7,4   SAY "MID:"
  @  7,9   SAY MID
  @  7,22  SAY "LNAME:"
  @  7,29  SAY LNAME
  @  7,48  SAY "FNAME:"
  @  7,55  SAY FNAME
  @  7,69  SAY "MI:"
  @  7,73  SAY MI
  @ 10,4   SAY "SPGRD:"
  @ 10,11  SAY SPGRD
  @ 10,21  SAY "PGRD:"
  @ 10,27  SAY PGRD
  @ 10,36  SAY "DOR:"
  @ 10,41  SAY DOR
  @ 13,4   SAY "PMOS:"
  @ 13,10  SAY PMOS
  @ 13,21  SAY "AMOS1:"
  @ 13,28  SAY AMOS1
  @ 13,36  SAY "AMOS2:"
  @ 13,43  SAY AMOS2
  @ 16,4   SAY "DAUSDR:"
  @ 16,12  SAY DAUSDR
  @ 16,21  SAY "PEBD:"
  @ 16,27  SAY PEBD
  @ 16,36  SAY "AFADBD:"
  @ 16,44  SAY AFADBD
  @ 16,53  SAY "EAS:"
  @ 16,58  SAY EAS
  @ 20,4   SAY "MILITARY ID ("
  @ 20,17  SAY MMID
  @ 20,27  SAY ") IS ALREADY ON THE OFFICERS.DBF AS "+;
  "SHOWN ABOVE"
***********************************************************
```

E. CURRJADD

```
* CURRJADD.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Add a new officer to the current job
*             database file.
* FILE USED : Currjobs.dbf index currjmid.ndx
* CALLING   : Currjadd.fmt, Currjdup.fmt
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
*********************************************************
* CASE SELECTION = 1     Add A New Job Record
*********************************************************
*
* Use the current jobs database indexed on military ID
* and check for duplicate record.
*
  USE CURRJOBS INDEX CURRJMID.NDX
  GO TOP
  SEEK UPPER (MMID)
  CLEAR
  IF EOF () = .T. THEN
*
* Clear screen and set initial values for variables to
* be added to the file. The M prefix indicates memory
* variables distinguishing them from their corresponding
* database fields.
*
     STORE '          '  TO MTOLINEN
     STORE '   '         TO MMCC
     STORE '    '        TO MGLCDCTB
     STORE '      '      TO MDCTB
     STORE '      '      TO MRTD
     STORE '   '         TO MFMCC
     STORE '   '         TO MPDU1
     STORE '   '         TO MPDU2
     STORE '   '         TO MPDU3
     STORE ' '           TO MMARST
     STORE ' '           TO MSPOSVC
*
* Set-up inner loop which gives the user a chance to
* correct the entries before adding them to the file.
*
     STORE 1 TO CONTADDCJ
     DO WHILE CONTADDCJ = 1
*
* Using the current job add format file to produce the
* screen display.
*
     SET FORMAT TO CURRJADD.FMT
     READ
*
* Select a location at the bottom of screen and prompt
* for corrections.
*
     ACCEPT "DO YOU WISH TO MAKE ANY CORRECTIONS?"+;
     "  (Y/N)  ===>   " TO YN
     IF UPPER(YN)="N"
        STORE 0 TO CONTADDCJ
        CLEAR
     ENDIF
     ENDDO WHILE CONTADDCJ = 0
*
* If entries are correct, add them to database.
*
     APPEND BLANK
     REPLACE MID         WITH MMID
     REPLACE TOLINENO    WITH MTOLINEN
     REPLACE MCC         WITH MMCC
     REPLACE GLCDCTB     WITH MGLCDCTB
     REPLACE DCTB        WITH MDCTB
     REPLACE RTD         WITH MRTD
     REPLACE FMCC        WITH MFMCC
     REPLACE PDU1        WITH MPDU1
     REPLACE PDU2        WITH MPDU2
     REPLACE PDU3        WITH MPDU3
     REPLACE MARST       WITH MMARST
     REPLACE SPOSVC      WITH MSPOSVC
  ELSE
*
* Show the user the duplicate military ID record and
* wait for a response.
*
     SET TALK ON
     SET FORMAT TO CURRJDUP.FMT
     EDIT
     WAIT
     SET TALK OFF
  ENDIF
*
* Return to calling program.
*
  RETURN
********************************************************
```

F. CURRJADD.FMT

```
* CURRJADD.FMT
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Provide the current job add format screen.
* FILE USED : None
* CALLING   : None
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
* Set screen format for adding a new current job record.
*
  @  0,23  SAY "                                "
  @  1,23  SAY "  ADD A NEW CURRENT JOB FORMAT  "
  @  2,23  SAY "  ----------------------------  "
  @  3,23  SAY "                                "
  @  5,4   SAY "MID:"
  @  5,9   SAY MMID
  @  5,22  SAY "LNAME:"
  @  5,29  SAY MLNAME
  @  5,48  SAY "FNAME:"
  @  5,55  SAY MFNAME
  @  5,69  SAY "MI:"
  @  5,73  SAY MMI
  @  7,4   SAY "SPGRD:"
  @  7,11  SAY MSPGRD
  @  7,21  SAY "PGRD:"
  @  7,27  SAY MPGRD
  @  7,36  SAY "DOR:"
  @  7,41  SAY MDOR
  @  9,4   SAY "PMOS:"
  @  9,10  SAY MPMOS
  @  9,21  SAY "AMOS1:"
  @  9,28  SAY MAMOS1
  @  9,36  SAY "AMOS2:"
  @  9,43  SAY MAMOS2
  @ 11,4   SAY "DAUSDR:"
  @ 11,12  SAY MDAUSDR
  @ 11,21  SAY "PEBD:"
  @ 11,27  SAY MPEBD
  @ 11,36  SAY "AFADBD:"
  @ 11,44  SAY MAFADBD
  @ 11,53  SAY "EAS:"
  @ 11,58  SAY MEAS
  @ 14,4   SAY "TOLINENO:";
           GET MTOLINEN PICTURE '9999!9999!'
  @ 14,25  SAY "MCC:"      GET MMCC     PICTURE 'NNN'
  @ 14,34  SAY "GLCDCTB:"  GET MGLCDCTB PICTURE '9999'
  @ 14,48  SAY "DCTB:"     GET MDCTB    PICTURE '999999'
  @ 14,61  SAY "RTD:"      GET MRTD     PICTURE '#####9'
  @ 16,4   SAY "FMCC:"     GET MFMCC    PICTURE '!!!'
  @ 16,15  SAY "PDU1:"     GET MPDU1   PICTURE '!!!'
  @ 16,26  SAY "PDU2:"     GET MPDU2   PICTURE '!!!'
  @ 16,37  SAY "PDU3:"     GET MPDU3   PICTURE '!!!'
  @ 16,48  SAY "MARST:"    GET MMARST  PICTURE 'A'
  @ 16,58  SAY "SPOSVC:"   GET MSPOSVC PICTURE 'N'
  @ 18,4   SAY "******************************************"
  @ 18,46  SAY "************************"
  @ 19,4   SAY "* OFFNOTES - CAN BE EDITED DURING THE CURR"
  @ 19,46  SAY "ENT JOB UPDATE PROCESS *"
  @ 20,4   SAY "******************************************"
  @ 20,46  SAY "************************"
  @ 22,4   SAY "OFFNOTES:"
***********************************************************
```

G. CURRJDUP.FMT

```
* CURRJDUP.FMT
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Provide the current job duplicate format
*             screen.
* FILE USED : None
* CALLING   : None
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
* Set screen format for a duplicate current job record.
*
  @  0,25  SAY "                                "
  @  1,25  SAY "  CURRENT JOB DUPLICATE FORMAT  "
  @  2,25  SAY "  ----------------------------  "
  @  3,25  SAY "                                "
  @  7,4   SAY "MID:"
  @  7,9   SAY MID
  @ 10,4   SAY "TOLINENO:"
  @ 10,14  SAY TOLINENO
  @ 10,25  SAY "MCC:"
  @ 10,30  SAY MCC
  @ 10,34  SAY "GLCDCTB:"
  @ 10,43  SAY GLCDCTB
  @ 10,48  SAY "DCTB:"
  @ 10,54  SAY DCTB
  @ 10,61  SAY "RTD:"
  @ 10,66  SAY RTD
  @ 13,4   SAY "FMCC:"
  @ 13,10  SAY FMCC
  @ 13,15  SAY "PDU1:"
  @ 13,21  SAY PDU1
  @ 13,26  SAY "PDU2:"
  @ 13,32  SAY PDU2
  @ 13,37  SAY "PDU3:"
  @ 13,43  SAY PDU3
  @ 13,48  SAY "MARST:"
  @ 13,55  SAY MARST
  @ 13,58  SAY "SPOSVC:"
  @ 13,66  SAY SPOSVC
  @ 15,4   SAY "******************************************"
  @ 15,46  SAY "******************"
  @ 16,4   SAY "* OFFNOTES | EDIT - ^PGDN | EXIT - ^PGUP |"
  @ 16,46  SAY " CONTINUE - ^END *"
  @ 17,4   SAY "******************************************"
  @ 17,46  SAY "******************"
  @ 19,4   SAY "OFFNOTES:" GET OFFNOTES
  @ 22,4   SAY "MILITARY ID ("
  @ 22,17  SAY MMID
  @ 22,27  SAY ") IS ALREADY ON THE CURRJOBS.DBF AS "+;
  "SHOWN ABOVE"
************************************************************
```

H. OFFICUPD

```
* OFFICUPD.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Update an existing officer record in the
*             officer database file.
* FILE USED : Officers.dbf index officmid.ndx, officnam.ndx
*             Currjobs.dbf index currjmid.ndx
* CALLING   : Officupd.fmt
*
* DATE LAST TIME MODIFIED =====> 13 NOVEMBER 1985 <=====
*
*********************************************************
* CASE SELECTION = 2     Update Existing Officer Record
*********************************************************
*
* Set-up outer loop to repeat when the user wants to update
* more records.
*
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use current jobs database indexed on military identifica-
* tion number and store the officer's current job
* information and check for no record found.
*
  USE CURRJOBS INDEX CURRJMID.NDX
  CLEAR
  STORE '          ' TO MMID
  @ 12,1 SAY "Enter military ID to be updated"+;
  " (i.e. 0094366065): " GET MMID PICTURE '9999999999'
  READ
  GO TOP
  SEEK UPPER (MMID)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1 SAY "MILITARY IDENTIFICATION NUMBER ("
     @ 21,33 SAY MMID
     @ 21,43 SAY ") NOT FOUND ON CURRJOBS.DBF "
     WAIT
     SET TALK OFF
  ELSE
     STORE TOLINENO TO MTOLINEN
     STORE MCC TO MMCC
     STORE GLCDCTB TO MGLCDCTB
     STORE DCTB TO MDCTB
     STORE RTD TO MRTD
```

```
      STORE FMCC TO MFMCC
      STORE PDU1 TO MPDU1
      STORE PDU2 TO MPDU2
      STORE PDU3 TO MPDU3
      STORE MARST TO MMARST
      STORE SPOSVC TO MSPOSV
*
* Use officers database indexed on military identification
* number using the officer's military identification number
* provided by the user.
*
      USE OFFICERS INDEX OFFICMID.NDX, OFFICNAM.NDX
      GO TOP
      SEEK UPPER (MMID)
*
* Check for no record found on the database.
*
      IF EOF () = .T. THEN
         SET TALK ON
         @ 21,1 SAY " MILITARY IDENTIFICATION NUMBER ("
         @ 21,33 SAY MMID
         @ 21,43 SAY ") NOT FOUND ON OFFICERS.DBF "
         WAIT
         SET TALK OFF
         CLEAR
      ELSE
*
* Storing the old record to a work record area.  The M
* prefix indicates memory variables distinguishing them
* from their corresponding database fields.
*
         STORE LNAME     TO MLNAME
         STORE FNAME     TO MFNAME
         STORE MI        TO MMI
         STORE PGRD      TO MPGRD
         STORE SPGRD     TO MSPGRD
         STORE DOR       TO MDOR
         STORE PMOS      TO MPMOS
         STORE AMOS1     TO MAMOS1
         STORE AMOS2     TO MAMOS2
         STORE DAUSDR    TO MDAUSDR
         STORE PEBD      TO MPEBD
         STORE AFADBD    TO MAFADBD
         STORE EAS       TO MEAS
*
* Set-up inner loop which gives the user a chance to
* correct the entries before updating the file.
*
         STORE 1 TO CONTUPDOF
         DO WHILE CONTUPDOF = 1
*
```

```
* Using the officer update format file to produce the
* screen display.
*
        SET FORMAT TO OFFICUPD.FMT
        READ
*
* Select a location near bottom of the screen and prompt
* for corrections.
*
        ACCEPT 'DO YOU WISH TO MAKE ANY CORRECTIONS?'+;
        ' (Y/N) ===>  ' TO YN
        IF UPPER (YN) = 'N'
           STORE 0 TO CONTUPDOF
           CLEAR
        ENDIF
        ENDDO WHILE CONTUPDOF = 0
*
* Storing the corrected edit fields from the work area.
*
        REPLACE MID          WITH MMID
        REPLACE LNAME        WITH MLNAME
        REPLACE FNAME        WITH MFNAME
        REPLACE MI           WITH MMI
        REPLACE PGRD         WITH MPGRD
        REPLACE SPGRD        WITH MSPGRD
        REPLACE DOR          WITH MDOR
        REPLACE PMOS         WITH MPMOS
        REPLACE AMOS1        WITH MAMOS1
        REPLACE AMOS2        WITH MAMOS2
        REPLACE DAUSDR       WITH MDAUSDR
        REPLACE PEBD         WITH MPEBD
        REPLACE AFADBD       WITH MAFADBD
        REPLACE EAS          WITH MEAS
     ENDIF
  ENDIF
*
* Select a location at the bottom of the screen and prompt
* for more updates.
*
  ACCEPT 'UPDATE ANOTHER RECORD?  (Y/N) ===>  ' TO YN1
  IF UPPER(YN1) = 'N'
     STORE 0 TO MORE
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  RETURN
***********************************************************
```

I. OFFICUPD.FMT

```
* OFFICUPD.FMT
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Provide the officer update format screen.
* FILE USED  : None
* CALLING    : None
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
* Set screen format for updating an officer's record.
*
  @  0,27  SAY "                         "
  @  1,27  SAY "  OFFICER UPDATE FORMAT  "
  @  2,27  SAY "  ---------------------  "
  @  3,27  SAY "                         "
  @  5,4   SAY "MID:"
  @  5,9   SAY MMID
  @  5,22  SAY "LNAME:";
           GET MLNAME  PICTURE '!!!!!!!!!!!!!!!!!!'
  @  5,48  SAY "FNAME:" GET MFNAME   PICTURE '!!!!!!!!!!!!!'
  @  5,69  SAY "MI:"    GET MMI      PICTURE '!'
  @  7,4   SAY "SPGRD:" GET MSPGRD   PICTURE 'A9!'
  @  7,21  SAY "PGRD:"  GET MPGRD    PICTURE 'A9!'
  @  7,36  SAY "DOR:"   GET MDOR     PICTURE '999999'
  @  9,4   SAY "PMOS:"  GET MPMOS    PICTURE '9999'
  @  9,21  SAY "AMOS1:" GET MAMOS1   PICTURE '####'
  @  9,36  SAY "AMOS2:" GET MAMOS2   PICTURE '####'
  @ 11,4   SAY "DAUSDR:"GET MDAUSDR  PICTURE '#####9'
  @ 11,21  SAY "PEBD:"  GET MPEBD    PICTURE '999999'
  @ 11,36  SAY "AFADBD:"GET MAFADBD  PICTURE '999999'
  @ 11,53  SAY "EAS:"   GET MEAS     PICTURE '999999'
  @ 14,4   SAY "TOLINENO:"
  @ 14,14  SAY MTOLINEN
  @ 14,25  SAY "MCC:"
  @ 14,30  SAY MMCC
  @ 14,34  SAY "GLCDCTB:"
  @ 14,43  SAY MGLCDCTB
  @ 14,48  SAY "DCTB:"
  @ 14,54  SAY MDCTB
  @ 14,61  SAY "RTD:"
  @ 14,66  SAY MRTD
  @ 16,4   SAY "FMCC:"
  @ 16,10  SAY MFMCC
  @ 16,15  SAY "PDU1:"
  @ 16,21  SAY MPDU1
  @ 16,26  SAY "PDU2:"
  @ 16,32  SAY MPDU2
  @ 16,37  SAY "PDU3:"
  @ 16,43  SAY MPDU3
  @ 16,48  SAY "MARST:"
  @ 16,55  SAY MMARST
  @ 16,58  SAY "SPOSVC:"
  @ 16,66  SAY MSPOSVC
  @ 18,4   SAY "******************************************"
  @ 18,46  SAY "************************"
  @ 19,4   SAY "* OFFNOTES - CAN BE EDITED DURING THE CURR"
  @ 19,46  SAY "ENT JOB UPDATE PROCESS *"
  @ 20,4   SAY "******************************************"
  @ 20,46  SAY "************************"
  @ 22,4   SAY "OFFNOTES:"
***********************************************************
```

J. OFFICDEL

```
* OFFICDEL.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Delete an existing officer record in the
*             officer and current job database files.
* FILE USED : Officers.dbf index officmid.ndx
* CALLING   : Officdel.fmt, Currjdel.prg
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
**********************************************************
* CASE SELECTION = 3   Delete An Existing Officer Record
**********************************************************
*
* Set-up outer loop to repeat when the user wants to delete
* more records.
*
  STORE 0 TO DELFLAG1
  STORE 0 TO DELFLAG2
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use officers database indexed on military identification
* number and wait for the user to input the officer's
* military identification number.
*
  USE OFFICERS INDEX OFFICMID.NDX
  CLEAR
  STORE '          ' TO MMID
  @ 12,1 SAY "Enter military ID to be deleted"+;
  " (i.e. 0094366065): " GET MMID PICTURE '9999999999'
  READ
  GO TOP
  SEEK UPPER (MMID)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1 SAY " MILITARY IDENTIFICATION NUMBER ("
     @ 21,34 SAY MMID
     @ 21,44 SAY ") NOT FOUND ON OFFICERS.DBF "
     WAIT
     SET TALK OFF
     CLEAR
  ELSE
*
* Using the officer delete format file to produce the
* screen display.
```

```
*
     SET FORMAT TO OFFICDEL.FMT
     READ
*
* Select a location near bottom of the screen and prompt
* for deletion and deletion confirmation.
*
     ACCEPT 'Do You Wish To DELETE This Record?'+;
     ' (Y/N) ===>  ' TO YN
     IF UPPER (YN) = 'Y'
       ACCEPT 'ARE YOU SURE YOU WANT TO DELETE THIS'+;
       'RECORD ? (Y/N) ' TO SURE
       IF UPPER (SURE) = 'Y'
          DELETE
          STORE 1 TO DELFLAG1
          DO CURRJDEL
       ENDIF
     ENDIF
   CLEAR
  ENDIF
*
* Select a location at the bottom of the screen and prompt
* for more deletions.
*
  ACCEPT 'DELETE ANOTHER RECORD?  (Y/N) ===>  ' TO YN1
  IF UPPER (YN1) = 'N'
     STORE 0 TO MORE
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  CLEAR
  IF DELFLAG2 = 1 THEN
     @ 12,1 SAY " ONE MOMENT PLEASE ... ERASING DELETED"+;
     " RECORDS "
     PACK
  ENDIF
  IF DELFLAG1 = 1 THEN
     USE OFFICERS INDEX OFFICMID.NDX
     @ 12,1 SAY " ONE MOMENT PLEASE ... ERASING DELETED"+;
     " RECORDS "
     PACK
  ENDIF
  CLEAR
  RETURN
***********************************************************
```

K. OFFICDEL.FMT

```
* OFFICDEL.FMT
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Provide the officer delete format screen.
* FILE USED  : None
* CALLING    : None
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
* Set screen format for deleting an officer record.
*
  @  0,27  SAY "                          "
  @  1,27  SAY "  OFFICER DELETE FORMAT   "
  @  2,27  SAY "  ---------------------   "
  @  3,27  SAY "                          "
  @  7,4   SAY "MID:"
  @  7,9   SAY MID
  @  7,22  SAY "LNAME:"
  @  7,29  SAY LNAME
  @  7,48  SAY "FNAME:"
  @  7,55  SAY FNAME
  @  7,69  SAY "MI:"
  @  7,73  SAY MI
  @ 10,4   SAY "SPGRD:"
  @ 10,11  SAY SPGRD
  @ 10,21  SAY "PGRD:"
  @ 10,27  SAY PGRD
  @ 10,36  SAY "DOR:"
  @ 10,41  SAY DOR
  @ 13,4   SAY "PMOS:"
  @ 13,10  SAY PMOS
  @ 13,21  SAY "AMOS1:"
  @ 13,28  SAY AMOS1
  @ 13,36  SAY "AMOS2:"
  @ 13,43  SAY AMOS2
  @ 16,4   SAY "DAUSDR:"
  @ 16,12  SAY DAUSDR
  @ 16,21  SAY "PEBD:"
  @ 16,27  SAY PEBD
  @ 16,36  SAY "AFADBD:"
  @ 16,44  SAY AFADBD
  @ 16,53  SAY "EAS:"
  @ 16,58  SAY EAS
**********************************************************
```

L. CURRJDEL

```
* CURRJDEL.PRG
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Delete an existing officer record in the
*              current job database file.
* FILE USED : Currjobs.dbf index currjmid.ndx
* CALLING    : Currjdel.fmt
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
***********************************************************
* CASE SELECTION = 3  Delete An Existing Current Job Record
***********************************************************
*
* Use current job database indexed on military
* identification number and take the officer's military
* identification number supplied by the user and find the
* record.
*
  USE CURRJOBS INDEX CURRJMID.NDX
  GO TOP
  SEEK UPPER (MMID)
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1 SAY " MILITARY IDENTIFICATION NUMBER ("
     @ 21,34 SAY MMID
     @ 21,44 SAY ") NOT FOUND ON CURRJOBS.DBF "
     WAIT
     SET TALK OFF
  ELSE
*
* Using the current job delete format file to produce the
* screen display.
*
     SET FORMAT TO CURRJDEL.FMT
     EDIT
*
* Delete record and set delete record flag.

*
     DELETE
     STORE 1 TO DELFLAG2
  ENDIF
*
* Return to calling program.
*
  CLEAR
```

```
   RETURN
************************************************************
```

M. CURRJDEL.FMT

```
* CURRJDEL.FMT
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Provide the current job delete format
*              screen.
* FILE USED : None
* CALLING    : None
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
* Set screen format for deleting a current job record.
*
  @  0,25  SAY "                             "
  @  1,25  SAY "  CURRENT JOB DELETE FORMAT  "
  @  2,25  SAY "  -------------------------  "
  @  3,25  SAY "                             "
  @  7,4   SAY "MID:"
  @  7,9   SAY MID
  @ 10,4   SAY "TOLINENO:"
  @ 10,14  SAY TOLINENO
  @ 10,25  SAY "MCC:"
  @ 10,30  SAY MCC
  @ 10,34  SAY "GLCDCTB:"
  @ 10,43  SAY GLCDCTB
  @ 10,48  SAY "DCTB:"
  @ 10,54  SAY DCTB
  @ 10,61  SAY "RTD:"
  @ 10,66  SAY RTD
  @ 13,4   SAY "FMCC:"
  @ 13,10  SAY FMCC
  @ 13,15  SAY "PDU1:"
  @ 13,21  SAY PDU1
  @ 13,26  SAY "PDU2:"
  @ 13,32  SAY PDU2
  @ 13,37  SAY "PDU3:"
  @ 13,43  SAY PDU3
  @ 13,48  SAY "MARST:"
  @ 13,55  SAY MARST
  @ 13,58  SAY "SPOSVC:"
  @ 13,66  SAY SPOSVC
  @ 15,4   SAY "******************************************"
  @ 15,46  SAY "******************"
  @ 16,4   SAY "* OFFNOTES | EDIT - ^PGDN | EXIT - ^PGUP |"
  @ 16,46  SAY " CONTINUE - ^END *"
  @ 17,4   SAY "******************************************"
  @ 17,46  SAY "******************"
  @ 19,4   SAY "OFFNOTES:" GET OFFNOTES
  @ 21,1   SAY " CURRENT JOB RECORD FOR MID ("
  @ 21,30  SAY MMID
  @ 21,40  SAY ") IS ALSO BEING DELETED "
*************************************************************
```

N. OFFICREV

```
* OFFICREV.PRG
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Review an existing officer record in the
*              officer and current job database files.
* FILE USED : Officers.dbf index officmid.ndx
*              Currjobs.dbf index currjmid.ndx
* CALLING    : Officrev.fmt
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
**********************************************************
* CASE SELECTION = 4   Review An Existing Officer Record
**********************************************************
*
* Set-up outer loop to repeat when the user wants to review
* more records.
*
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use officers database indexed on military identification
* number and wait for the user to input the officer's
* military identification number.
*
  USE OFFICERS INDEX OFFICMID.NDX
  CLEAR
  STORE '          ' TO MMID
  @ 12,1 SAY "Enter military ID to be reviewed"+;
  "(i.e. 0094366065): " GET MMID PICTURE '9999999999'
  READ
  GO TOP
  SEEK UPPER (MMID)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1 SAY " MILITARY IDENTIFICATION NUMBER ("
     @ 21,34 SAY MMID
     @ 21,44 SAY ") NOT FOUND ON OFFICERS.DBF "
     WAIT
     SET TALK OFF
  ELSE
*
* Storing the old record to a work record area.  The M
* prefix indicates memory variables distinguishing them
* from their corresponding database fields.
*
```

```
     STORE LNAME TO MLNAME
     STORE FNAME TO MFNAME
     STORE MI TO MMI
     STORE SPGRD TO MSPGRD
     STORE PGRD TO MPGRD
     STORE DOR TO MDOR
     STORE PMOS TO MPMOS
     STORE AMOS1 TO MAMOS1
     STORE AMOS2 TO MAMOS2
     STORE DAUSDR TO MDAUSDR
     STORE PEBD TO MPEBD
     STORE AFADBD TO MAFADBD
     STORE EAS TO MEAS
*
* Using the officer review format file to produce the
* screen display, showing both officer and current job
* information to the user.  Checking also for no record
* found in database.
*
     USE CURRJOBS INDEX CURRJMID.NDX
     GO TOP
     SEEK UPPER (MMID)
     IF EOF () = .T. THEN
        SET TALK ON
        @ 21,1 SAY " MILITARY IDENTIFICATION NUMBER ("
        @ 21,34 SAY MMID
        @ 21,44 SAY ") NOT FOUND ON CURRJOBS.DBF "
        WAIT
        SET TALK OFF
     ENDIF
     SET FORMAT TO OFFICREV.FMT
     EDIT
  ENDIF
*
* Select a location at the bottom of the screen and prompt
* for more reviews.
*
  ACCEPT 'REVIEW ANOTHER RECORD?  (Y/N) ===>  ' TO YN1
  IF UPPER(YN1) = 'N'
     STORE 0 TO MORE
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  RETURN
***********************************************************
```

O. OFFICREV.FMT

```
* OFFICREV.FMT
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Provide the officer review format screen.
* FILE USED : None
* CALLING   : None
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
* Set screen format for reviewing an officer's record.
*
  @  0,27  SAY "                          "
  @  1,27  SAY "  OFFICER REVIEW FORMAT   "
  @  2,27  SAY "  ---------------------   "
  @  3,27  SAY "                          "
  @  5,4   SAY "MID:"
  @  5,9   SAY MMID
  @  5,22  SAY "LNAME:"
  @  5,29  SAY MLNAME
  @  5,48  SAY "FNAME:"
  @  5,55  SAY MFNAME
  @  5,69  SAY "MI:"
  @  5,73  SAY MMI
  @  7,4   SAY "SPGRD:"
  @  7,11  SAY MSPGRD
  @  7,21  SAY "PGRD:"
  @  7,27  SAY MPGRD
  @  7,36  SAY "DOR:"
  @  7,41  SAY MDOR
  @  9,4   SAY "PMOS:"
  @  9,10  SAY MPMOS
  @  9,21  SAY "AMOS1:"
  @  9,28  SAY MAMOS1
  @  9,36  SAY "AMOS2:"
  @  9,43  SAY MAMOS2
  @ 11,4   SAY "DAUSDR:"
  @ 11,12  SAY MDAUSDR
  @ 11,21  SAY "PEBD:"
  @ 11,27  SAY MPEBD
  @ 11,36  SAY "AFADBD:"
  @ 11,44  SAY MAFADBD
  @ 11,53  SAY "EAS:"
  @ 11,58  SAY MEAS
  @ 14,4   SAY "TOLINENO:"
  @ 14,14  SAY TOLINENO
  @ 14,25  SAY "MCC:"
  @ 14,30  SAY MCC
  @ 14,34  SAY "GLCDCTB:"
  @ 14,43  SAY GLCDCTB
  @ 14,48  SAY "DCTB:"
  @ 14,54   SAY DCTB
  @ 14,61   SAY "RTD:"
  @ 14,66   SAY RTD
  @ 16,4    SAY "FMCC:"
  @ 16,10   SAY FMCC
  @ 16,15   SAY "PDU1:"
  @ 16,21   SAY PDU1
  @ 16,26   SAY "PDU2:"
  @ 16,32   SAY PDU2
  @ 16,37   SAY "PDU3:"
  @ 16,43   SAY PDU3
  @ 16,48   SAY "MARST:"
  @ 16,55   SAY MARST
  @ 16,58   SAY "SPOSVC:"
  @ 16,66   SAY SPOSVC
  @ 18,4    SAY "******************************************"
  @ 18,46   SAY "******************"
  @ 19,4    SAY "* OFFNOTES | EDIT - ^PGDN | EXIT - ^PGUP |"
  @ 19,46   SAY " CONTINUE - ^END *"
  @ 20,4    SAY "******************************************"
  @ 20,46   SAY "******************"
  @ 22,4    SAY "OFFNOTES:" GET OFFNOTES
**********************************************************
```

APPENDIX D

CURRJOBS MODULE LISTINGS

A. CURRJCMD

```
* CURRJCMD.PRG
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Maintain the current job database file.
* FILE USED  : None
* CALLING    : Currjupd.prg
*
* DATE LAST TIME MODIFIED ====> 25 OCTOBER 1985 <=====
*
* Display the process menu to the user and wait for the
* selection.
*
  STORE 0 TO SELECTION
  STORE 1 TO TRYAGAIN
  DO WHILE TRYAGAIN = 1
  CLEAR
  @ 3,10  SAY "==============================="
  @ 3,40  SAY "=============================="
  @ 6,17  SAY "         MAINTAIN CURRENT JOBS FILE          "
  @ 7,17  SAY "         --------------------------          "
  @10,17  SAY " 1)  UPDATE an existing current job record "
  @12,17  SAY " 2)  RETURN to the main menu               "
  ?
  ?
  INPUT 'Enter your selection (1-2) ===> '  TO SELECTION
*
* Process routine based on the user's selection.
*
  DO CASE
***********************************************************
  CASE SELECTION = 1
***********************************************************
*
* Call the current jobs update program.
*
  DO CURRJUPD
***********************************************************
  CASE SELECTION = 2
***********************************************************
*
* Return to the mainmenu program.
```

```
*
  STORE 0 TO TRYAGAIN
  ENDCASE
************************************************************
  ENDDO WHILE TRYAGAIN = 0
  CLEAR ALL
  CLEAR
  RETURN
************************************************************
```

B. CURRJUPD

```
* CURRJUPD.PRG
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Update an existing current job record in the
*              current job database file.
* FILE USED : Officers.dbf index officmid.ndx
*              Currjobs.dbf index currjmid.ndx
* CALLING    : Currjupd.fmt
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
**********************************************************
* CASE SELECTION = 1  Update Existing Current Job Record
**********************************************************
*
* Set-up outer loop to repeat when the user wants to update
* more records.
*
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use officers database indexed on military identification
* number and store the officer's information and check for
* no record found.
*
  USE OFFICERS INDEX OFFICMID.NDX
  CLEAR
  STORE '          ' TO MMID
  @ 12,1 SAY "Enter military ID to be updated"+;
  "(i.e. 0094366065): " GET MMID PICTURE '9999999999'
  READ
  GO TOP
  SEEK UPPER (MMID)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1 SAY "MILITARY IDENTIFICATION NUMBER ("
     @ 21,34 SAY MMID
     @ 21,44 SAY ") NOT FOUND ON OFFICERS.DBF "
     WAIT
     SET TALK OFF
  ELSE
     STORE LNAME TO MLNAME
     STORE FNAME TO MFNAME
     STORE MI TO MMI
     STORE PGRD TO MPGRD
     STORE SPGRD TO MSPGRD
```

```
    STORE DOR TO MDOR
    STORE PMOS TO MPMOS
    STORE AMOS1 TO MAMOS1
    STORE AMOS2 TO MAMOS2
    STORE DAUSDR TO MDAUSDR
    STORE PEBD TO MPEBD
    STORE AFADBD TO MAFADBD
    STORE EAS TO MEAS
*
* Use current job database indexed on military
* identification number using the officer's military
* identification number provided by the user.
*
    USE CURRJOBS INDEX CURRJMID.NDX
    GO TOP
    SEEK UPPER (MMID)
*
* Check for no record found on the database.
*
    IF EOF () = .T. THEN
       SET TALK ON
       @ 21,1 SAY " MILITARY IDENTIFICATION NUMBER ("
       @ 21,34 SAY MMID
       @ 21,44 SAY ") NOT FOUND ON CURRJOBS.DBF "
       WAIT
       SET TALK OFF
       CLEAR
    ELSE
*
* Storing the old record to a work record area.  The M
* prefix indicates memory variables distinguishing them
* from their corresponding database fields.
*
       STORE TOLINENO  TO MTOLINEN
       STORE MCC       TO MMCC
       STORE GLCDCTB   TO MGLCDCTB
       STORE DCTB      TO MDCTB
       STORE RTD       TO MRTD
       STORE PDU1      TO MPDU1
       STORE PDU2      TO MPDU2
       STORE PDU3      TO MPDU3
       STORE FMCC      TO MFMCC
       STORE MARST     TO MMARST
       STORE SPOSVC    TO MSPOSVC
*
* Set-up inner loop which gives the user a chance to
* correct the entries before updating the file.
*
       STORE 1 TO CONTUPDOF
       DO WHILE CONTUPDOF = 1
*
```

```
* Using the current job update format file to produce the
* screen display.
*
        SET FORMAT TO CURRJUPD.FMT
        EDIT
*
* Select a location near bottom of the screen and prompt
* for corrections.
*
        ACCEPT 'DO YOU WISH TO MAKE ANY CORRECTIONS?'+;
        ' (Y/N) ===>  ' TO YN
        IF UPPER (YN) = 'N'
           STORE 0 TO CONTUPDOF
           CLEAR
        ENDIF
        ENDDO WHILE CONTUPDOF = 0
*
* Storing the corrected edit fields from the work area.
*
        REPLACE TOLINENO    WITH MTOLINEN
        REPLACE MCC         WITH MMCC
        REPLACE GLCDCTB     WITH MGLCDCTB
        REPLACE DCTB        WITH MDCTB
        REPLACE RTD         WITH MRTD
        REPLACE PDU1        WITH MPDU1
        REPLACE PDU2        WITH MPDU2
        REPLACE PDU3        WITH MPDU3
        REPLACE FMCC        WITH MFMCC
        REPLACE MARST       WITH MMARST
        REPLACE SPOSVC      WITH MSPOSVC
     ENDIF
  ENDIF
*
* Select a location at the bottom of the screen and prompt
* for more updates.
*
  ACCEPT 'UPDATE ANOTHER RECORD?  (Y/N) ===>  ' TO YN1
  IF UPPER(YN1) = 'N'
     STORE 0 TO MORE
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  RETURN
***********************************************************
```

C. CURRJUPD.FMT

```
* CURRJUPD.FMT
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Provide the current job update format
               screen.
* FILE USED : None
* CALLING    : None
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
* Set screen format for updating a current job record.
*
  @  0,25  SAY "                              "
  @  1,25  SAY "  CURRENT JOB UPDATE FORMAT   "
  @  2,25  SAY "  -------------------------   "
  @  3,25  SAY "                              "
  @  5,4   SAY "MID:"
  @  5,9   SAY MMID
  @  5,22  SAY "LNAME:"
  @  5,29  SAY MLNAME
  @  5,48  SAY "FNAME:"
  @  5,55  SAY MFNAME
  @  5,69  SAY "MI:"
  @  5,73  SAY MMI
  @  7,4   SAY "SPGRD:"
  @  7,11  SAY MSPGRD
  @  7,21  SAY "PGRD:"
  @  7,27  SAY MPGRD
  @  7,36  SAY "DOR:"
  @  7,41  SAY MDOR
  @  9,4   SAY "PMOS:"
  @  9,10  SAY MPMOS
  @  9,21  SAY "AMOS1:"
  @  9,28  SAY MAMOS1
  @  9,36  SAY "AMOS2:"
  @  9,43  SAY MAMOS2
  @ 11,4   SAY "DAUSDR:"
  @ 11,12  SAY MDAUSDR
  @ 11,21  SAY "PEBD:"
  @ 11,27  SAY MPEBD
  @ 11,36  SAY "AFADBD:"
  @ 11,44  SAY MAFADBD
  @ 11,53  SAY "EAS:"
  @ 11,58  SAY MEAS
  @ 14,4   SAY "TOLINENO:";
           GET MTOLINEN PICTURE '9999!9999!'
  @ 14,25  SAY "MCC:"       GET MMCC      PICTURE 'NNN'
  @ 14,34  SAY "GLCDCTB:"   GET MGLCDCTB  PICTURE '9999'
  @ 14,48  SAY "DCTB:"      GET MDCTB     PICTURE '999999'
  @ 14,61  SAY "RTD:"       GET MRTD      PICTURE '#####9'
  @ 16,4   SAY "FMCC:"     GET MFMCC    PICTURE '!!!'
  @ 16,15  SAY "PDU1:"     GET MPDU1    PICTURE '!!!'
  @ 16,26  SAY "PDU2:"     GET MPDU2    PICTURE '!!!'
  @ 16,37  SAY "PDU3:"     GET MPDU3    PICTURE '!!!'
  @ 16,48  SAY "MARST:"    GET MMARST   PICTURE 'A'
  @ 16,58  SAY "SPOSVC:"   GET MSPOSVC  PICTURE 'N'
  @ 18,4   SAY "******************************************"
  @ 18,46  SAY "******************"
  @ 19,4   SAY "* OFFNOTES | EDIT - ^PGDN | EXIT - ^PGUP |"
  @ 19,46  SAY " CONTINUE - ^END *"
  @ 20,4   SAY "******************************************"
  @ 20,46  SAY "******************"
  @ 22,4   SAY "OFFNOTES:" GET OFFNOTES
***********************************************************
```

APPENDIX E

STATION MODULE LISTINGS

A. STATICMD

```
* STATICMD.PRG
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Maintain or review the duty station database
*              file.
* FILE USED : None
* CALLING    : Statiadd.prg, Statiupd.prg, Statidel.prg,
*              Statirev.prg
*
* DATE LAST TIME MODIFIED =====> 25 OCTOBER 1985 <=====
*
* Display the process menu to the user and wait for the
* selection.
*
  STORE 0 TO SELECTION
  STORE 1 TO TRYAGAIN
  DO WHILE TRYAGAIN = 1
  CLEAR
  @ 3,10  SAY "=============================="
  @ 3,40  SAY "=============================="
  @ 6,18  SAY "         MAINTAIN DUTY STATION"+;
  " FILE            "
  @ 7,18  SAY "        "+;
  "--------------------------            "
  @10,18  SAY "  1)   ADD a new duty station"+;
  " record            "
  @11,18  SAY "  2)   UPDATE an existing duty station"+;
  " record  "
  @12,18  SAY "  3)   DELETE an existing duty station"+;
  " record  "
  @13,18  SAY "  4)   REVIEW an existing duty station"+;
  " record  "
  @15,18  SAY "  5)   RETURN to the main"+;
  " menu                  "
  ?
  ?
  INPUT 'Enter your selection (1-5) ===> '  TO SELECTION
*
* Process routine based on the user's selection.
*
  DO CASE
```

```
***********************************************************
  CASE SELECTION = 1
***********************************************************
*
* Call the duty station add program.
*
  DO STATIADD
***********************************************************
  CASE SELECTION = 2
***********************************************************
*
* Call the duty station update program.
*
  DO STATIUPD
***********************************************************
  CASE SELECTION = 3
***********************************************************
*
* Call the duty station deletion program.
*
  DO STATIDEL
***********************************************************
  CASE SELECTION = 4
***********************************************************
*
* Call the duty station review program.
*
  DO STATIREV
***********************************************************
  CASE SELECTION = 5
***********************************************************
*
* Return to the mainmenu program.
*
  STORE 0 TO TRYAGAIN
  ENDCASE
***********************************************************
  ENDDO WHILE TRYAGAIN = 0
  CLEAR ALL
  CLEAR
  RETURN
***********************************************************
```

B. STATIADD

```
* STATIADD.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Add new billets to the duty station database
*             file.
* FILE USED : Station.dbf index statolno.ndx
* CALLING   : Statiadd.fmt, Statidup.fmt
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
***********************************************************
* CASE SELECTION = 1  Add A New Duty Station Billet Record
***********************************************************
*
* Set up outer loop to repeat when the user wants to add
* more records.
*
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use the station database indexed on T/O line number and
* wait for the user to input the new T/O line number.
*
  USE STATION INDEX STATOLNO.NDX
  CLEAR
  STORE '          ' TO MTOLINEN
  @ 12,1 SAY "Enter T/O line number to be added"+;
  " (i.e. 3447N0135A): " GET MTOLINEN PICTURE '9999!9999!'
  READ
  GO TOP
  SEEK UPPER (MTOLINEN)
  CLEAR
*
* Check for duplicate record on the database.
*
  IF EOF () = .T. THEN
*
* Clear screen and set initial values for variables to
* be added to the file. The M prefix indicates memory
* variables distinguishing them from their corresponding
* database fields.
*
     STORE '    '                        TO MBMOS
     STORE '  '                          TO MBPGRD
     STORE '   '                         TO MMCC
     STORE '                          '  TO MBILLET
*
* Set-up inner loop which gives the user a chance to
* correct the entries before adding them to the file.
*
```

```
    STORE 1 TO CONTADDST
    DO WHILE CONTADDST = 1
*
* Using the station add format file to produce the
* screen display.
*
    SET FORMAT TO STATIADD.FMT
    READ
*
* Select a location at the bottom of screen and prompt
* for corrections.
*
    ACCEPT "DO YOU WISH TO MAKE ANY CORRECTIONS? "+;
    " (Y/N) ===>" TO YN
    IF UPPER(YN)="N"
       STORE 0 TO CONTADDST
       CLEAR
    ENDIF
    ENDDO WHILE CONTADDST = 0
*
* If entries are correct, add them to database.
*
    APPEND BLANK
    REPLACE BMOS      WITH MBMOS
    REPLACE BPGRD     WITH MBPGRD
    REPLACE MCC       WITH MMCC
    REPLACE TOLINENO  WITH MTOLINEN
    REPLACE BILLET    WITH MBILLET
  ELSE
*
* Show the user the duplicate T/O line number record
* and wait for a response.
*
    SET FORMAT TO STATIDUP.FMT
    EDIT
    CLEAR
  ENDIF
*
* Select a location at the bottom of the screen and
* prompt for more additions.
*
  ACCEPT "ADD ANOTHER RECORD?  (Y/N) ===>"  TO YN1
  IF UPPER (YN1)="N"
    STORE 0 TO MORE
    CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  RETURN
*******************************************************
```

C. STATIADD.FMT

```
* STATIADD.FMT
* AUTHOR     : DAVID H. HORTON MAJOR USMC
* PURPOSE    : Provide the station add format screen.
* FILE USED : None
* CALLING    : None
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
* Set screen format for adding a new station billet record.
*
  @  0,26  SAY "                           "
  @  1,26  SAY "  ADD A NEW BILLET FORMAT  "
  @  2,26  SAY "  ------------------------ "
  @  3,26  SAY "                           "
  @  7,4   SAY "BMOS:"     GET MBMOS    PICTURE '9999'
  @  7,15  SAY "BPGRD:"    GET MBPGRD   PICTURE 'A!'
  @  7,26  SAY "BILLET:";
           GET MBILLET  PICTURE '!!!!!!!!!!!!!!!!!!!!'
  @ 10,4   SAY "MCC:"      GET MMCC     PICTURE 'NNN'
  @ 10,15  SAY "TOLINENO:"
  @ 10,25  SAY MTOLINEN
  @ 13,4   SAY "******************************************"
  @ 13,46  SAY "********************"
  @ 14,4   SAY "* BILNOTES - CAN BE EDITED DURING THE STAT"
  @ 14,46  SAY "ION UPDATE PROCESS *"
  @ 15,4   SAY "******************************************"
  @ 15,46  SAY "********************"
  @ 17,4   SAY "BILNOTES:"
************************************************************
```

D. STATIDUP.FMT

```
* STATIDUP.FMT
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Provide the station duplicate record format
*              screen.
* FILE USED  : None
* CALLING    : None
*
* DATE LAST TIME MODIFIED =====> 9 NOVEMBER 1985 <=====
*
* Set screen format for the duplicate station record.
*
  @  0,26   SAY "                            "
  @  1,26   SAY "  STATION DUPLICATE FORMAT  "
  @  2,26   SAY "  ------------------------  "
  @  3,26   SAY "                            "
  @  7,4    SAY "BMOS:"
  @  7,9    SAY BMOS
  @  7,15   SAY "BPGRD:"
  @  7,22   SAY BPGRD
  @  7,26   SAY "BILLET:"
  @  7,34   SAY BILLET
  @ 10,4    SAY "MCC:"
  @ 10,9    SAY MCC
  @ 10,15   SAY "TOLINENO:"
  @ 10,25   SAY MTOLINEN
  @ 13,4    SAY "******************************************"
  @ 13,46   SAY "******************"
  @ 14,4    SAY "* BILNOTES | EDIT - ^PGDN | EXIT - ^PGUP |"
  @ 14,46   SAY " CONTINUE - ^END *"
  @ 15,4    SAY "******************************************"
  @ 15,46   SAY "******************"
  @ 17,4    SAY "BILNOTES:"  GET BILNOTES
  @ 21,4    SAY "T/O LINE NUMBER ("
  @ 21,21   SAY MTOLINEN
  @ 21,31   SAY ") IS ALREADY ON THE STATION.DBF AS"
  @ 22,4    SAY " SHOWN ABOVE"
**********************************************************
```

E. STATIUPD

```
* STATIUPD.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Update existing billets in the duty station
*             database file.
* FILE USED : Station.dbf index statolno.ndx
* CALLING   : Statiupd.fmt
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
*********************************************************
* CASE SELECTION = 2   Update An Existing Station Record
*********************************************************
*
* Set-up outer loop to repeat when the user wants to
* update more records.
*
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use the station database indexed on T/O line number and
* wait for the user to input the desired T/O line number.
*
  USE STATION INDEX STATOLNO.NDX
  CLEAR
  STORE '          ' TO MTOLINEN
  @ 12,1 SAY "Enter T/O line number to be updated"+;
  " (i.e. 3447N0135A): " GET MTOLINEN PICTURE '9999!9999!'
  READ
  GO TOP
  SEEK UPPER (MTOLINEN)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1 SAY "T/O LINE NUMBER ("
     @ 21,18 SAY MTOLINEN
     @ 21,28 SAY ") NOT FOUND ON STATION.DBF "
     WAIT
     SET TALK OFF
  ELSE
*
* Storing the old record to a work record area.  The M
* prefix indicates memory variables distinguishing them
* from their corresponding database fields.
*
     STORE BMOS       TO MBMOS
     STORE BPGRD      TO MBPGRD
     STORE MCC       TO MMCC
     STORE BILLET    TO MBILLET
*
* Set-up inner loop which gives the user a chance to
* correct the entries before updating the file.
*
     STORE 1 TO CONTUPDST
     DO WHILE CONTUPDST = 1
*
* Using the station update format file to produce the
* screen display.
*
     SET FORMAT TO STATIUPD.FMT
     EDIT
*
* Select a location near bottom of the screen and prompt
* for corrections.
*
     ACCEPT 'DO YOU WISH TO MAKE ANY CORRECTIONS? '+;
     ' (Y/N) ===>  ' TO YN
     IF UPPER (YN) = 'N'
        STORE 0 TO CONTUPDST
        CLEAR
     ENDIF
     ENDDO WHILE CONTUPDST = 0
*
* Storing the corrected edit fields from the work area.
*
     REPLACE BMOS        WITH MBMOS
     REPLACE BPGRD       WITH MBPGRD
     REPLACE MCC         WITH MMCC
     REPLACE TOLINENO    WITH MTOLINEN
     REPLACE BILLET      WITH MBILLET
  ENDIF
*
* Select a location at the bottom of the screen and
* prompt for more updates.
*
  ACCEPT 'UPDATE ANOTHER RECORD?  (Y/N) ===>  ' TO YN1
  IF UPPER(YN1) = 'N'
     STORE 0 TO MORE
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  RETURN
************************************************************
```

F. STATIUPD.FMT

```
* STATIUPD.FMT
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Provide the station update format screen.
* FILE USED : None
* CALLING   : None
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
* Set screen format for updating a station record.
*
  @  0,28  SAY "                         "
  @  1,28  SAY "  STATION UPDATE FORMAT  "
  @  2,28  SAY "  ---------------------  "
  @  3,28  SAY "                         "
  @  7,4   SAY "BMOS:"      GET MBMOS      PICTURE '9999'
  @  7,15  SAY "BPGRD:"     GET MBPGRD     PICTURE 'A!'
  @  7,26  SAY "BILLET:";
           GET MBILLET   PICTURE '!!!!!!!!!!!!!!!!!!!!'
  @ 10,4   SAY "MCC:"       GET MMCC       PICTURE 'NNN'
  @ 10,15  SAY "TOLINENO:"
  @ 10,25  SAY MTOLINEN
  @ 13,4   SAY "******************************************"
  @ 13,46  SAY "******************"
  @ 14,4   SAY "* BILNOTES | EDIT - ^PGDN | EXIT - ^PGUP |"
  @ 14,46  SAY " CONTINUE - ^END *"
  @ 15,4   SAY "******************************************"
  @ 15,46  SAY "******************"
  @ 17,4   SAY "BILNOTES:"  GET BILNOTES
************************************************************
```

G. STATIDEL

```
* STATIDEL.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Delete an existing billet in the duty
*             station database file.
* FILE USED : Station.dbf index statolno.ndx
* CALLING   : Statidel.fmt
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
*********************************************************
* CASE SELECTION = 3  Delete An Existing Station Record
*********************************************************
*
* Set-up outer loop to repeat when the user wants to
* delete more records.
*
  STORE 0 TO DELFLAG
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use the station database indexed on T/O line number and
* wait for the user to input the desired T/O line number.
*
  USE STATION INDEX STATOLNO.NDX
  CLEAR
  STORE '          ' TO MTOLINEN
  @ 12,1 SAY "Enter T/O line number to be deleted"+;
  " (i.e. 3447N0135A): " GET MTOLINEN PICTURE '9999!9999!'
  READ
  GO TOP
  SEEK UPPER (MTOLINEN)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1 SAY "T/O LINE NUMBER ("
     @ 21,18 SAY MTOLINEN
     @ 21,28 SAY ") NOT FOUND ON STATION.DBF "
     WAIT
     SET TALK OFF
  ELSE
*
* Using the station delete format  file to produce the
* screen display.
*
     SET FORMAT TO STATIDEL.FMT
     EDIT
```

```
*
* Select a location near bottom of the screen and prompt
* for deletion and confirmation.
*
     ACCEPT 'Do you Wish To DELETE This Record?'+;
     ' (Y/N) ===>  ' TO YN
     IF UPPER (YN) = 'Y'
        ACCEPT 'ARE YOU SURE YOU WANT TO DELETE THIS'+;
        ' RECORD? (Y/N) ' TO SURE
        IF UPPER (SURE) = 'Y'
           DELETE
           STORE 1 TO DELFLAG
        ENDIF
     ENDIF
   CLEAR
  ENDIF
*
* Select a location at the bottom of the screen and prompt
* for more deletions.
*
  ACCEPT 'DELETE ANOTHER RECORD?  (Y/N) ===>  ' TO YN1
  IF UPPER (YN1) = 'N'
     STORE 0 TO MORE
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  CLEAR
  IF DELFLAG = 1 THEN
     @ 12,1 SAY " ONE MOMENT PLEASE ... ERASING DELETED"+;
     " RECORDS "
     PACK
  ENDIF
  CLEAR
  RETURN
***********************************************************
```

H. STATIDEL.FMT

```
* STATIDEL.FMT
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Provide the station delete format screen.
* FILE USED : None
* CALLING   : None
*
* DATE LAST TIME MODIFIED =====> 9 NOVEMBER 1985 <=====
*
* Set screen format for deleting a station record.
*
  @  0,28  SAY "                         "
  @  1,28  SAY "  STATION DELETE FORMAT  "
  @  2,28  SAY "  ---------------------  "
  @  3,28  SAY "                         "
  @  7,4   SAY "BMOS:"
  @  7,9   SAY BMOS
  @  7,15  SAY "BPGRD:"
  @  7,22  SAY BPGRD
  @  7,26  SAY "BILLET:"
  @  7,34  SAY BILLET
  @ 10,4   SAY "MCC:"
  @ 10,9   SAY MCC
  @ 10,15  SAY "TOLINENO:"
  @ 10,25  SAY MTOLINEN
  @ 13,4   SAY "******************************************"
  @ 13,46  SAY "******************"
  @ 14,4   SAY "* BILNOTES | EDIT - ^PGDN | EXIT - ^PGUP |"
  @ 14,46  SAY " CONTINUE - ^END *"
  @ 15,4   SAY "******************************************"
  @ 15,46  SAY "******************"
  @ 17,4   SAY "BILNOTES:"  GET BILNOTES
***********************************************************
```

I. STATIREV

```
* STATIREV.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Review existing billets in the duty station
*             database file.
* FILE USED : Station.dbf index statolno.ndx
* CALLING   : Statirev.fmt
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
***********************************************************
* CASE SELECTION = 4     Review An Existing Station Record
***********************************************************
*
* Set-up outer loop to repeat when the user wants to review
* more records.
*
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use the station database indexed on T/O line number and
* wait for the user to input the desired T/O line number.
*
  USE STATION INDEX STATOLNO.NDX
  CLEAR
  STORE '          ' TO MTOLINEN
  @ 12,1 SAY "Enter T/O line number to be reviewed"+;
  " (i.e. 3447N0135A): " GET MTOLINEN PICTURE '9999!9999!'
  READ
  GO TOP
  SEEK UPPER (MTOLINEN)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1 SAY "T/O LINE NUMBER ("
     @ 21,18 SAY MTOLINEN
     @ 21,28 SAY ") NOT FOUND ON STATION.DBF "
     WAIT
     SET TALK OFF
  ELSE
*
* Using the station review format file to produce the
* screen display.
*
     SET FORMAT TO STATIREV.FMT
     EDIT
  ENDIF
```

```
*
* Select a location at the bottom of the screen and prompt
* for more reviews.
*
  ACCEPT 'REVIEW ANOTHER RECORD?  (Y/N) ===>  ' TO YN1
  IF UPPER(YN1) = 'N'
     STORE 0 TO MORE
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  RETURN
*************************************************************
```

J. STATIREV.FMT

```
* STATIREV.FMT
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Provide the station review format screen.
* FILE USED : None
* CALLING   : None
*
* DATE LAST TIME MODIFIED =====> 9 NOVEMBER 1985 <=====
*
* Set screen format for reviewing a station record.
*
  @  0,28   SAY "                         "
  @  1,28   SAY "  STATION REVIEW FORMAT  "
  @  2,28   SAY "  ---------------------  "
  @  3,28   SAY "                         "
  @  7,4    SAY "BMOS:"
  @  7,9    SAY BMOS
  @  7,15   SAY "BPGRD:"
  @  7,22   SAY BPGRD
  @  7,26   SAY "BILLET:"
  @  7,34   SAY BILLET
  @ 10,4    SAY "MCC:"
  @ 10,9    SAY MCC
  @ 10,15   SAY "TOLINENO:"
  @ 10,25   SAY MTOLINEN
  @ 13,4    SAY "******************************************"
  @ 13,46   SAY "******************"
  @ 14,4    SAY "* BILNOTES | EDIT - ^PGDN | EXIT - ^PGUP |"
  @ 14,46   SAY " CONTINUE - ^END *"
  @ 15,4    SAY "******************************************"
  @ 15,46   SAY "******************"
  @ 17,4    SAY "BILNOTES:"  GET BILNOTES
***********************************************************
```

APPENDIX F

MCCDESC MODULE LISTINGS

A. MCCDECMD

```
* MCCDECMD.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Maintain or review the mcc description
*             database file.
* FILE USED : None
* CALLING   : Mccdeadd.prg, Mccdeupd.prg, Mccdedel.prg,
*             Mccderev.prg
*
* DATE LAST TIME MODIFIED =====> 27 NOVEMBER 1985 <=====
*
* Display the process menu to the user and wait for the
* selection.
*
  STORE 0 TO SELECTION
  STORE 1 TO TRYAGAIN
  DO WHILE TRYAGAIN = 1
  CLEAR
  @ 3,10  SAY "==============================="
  @ 3,40  SAY "=============================="
  @ 6,15  SAY "          MAINTAIN MCC DESCRIPTION"+;
  " FILE          "
  @ 7,15  SAY "         "+;
  " -----------------------------           "
  @10,15  SAY "  1)  ADD a new mcc description"+;
  " record          "
  @11,15  SAY "  2)  UPDATE an existing mcc description"+;
  " record  "
  @12,15  SAY "  3)  DELETE an existing mcc description"+;
  " record  "
  @13,15  SAY "  4)  REVIEW an existing mcc description"+;
  " record  "
  @15,15  SAY "  5)  RETURN to the main"+;
  " menu                    "
  ?
  ?
  INPUT 'Enter your selection (1-5) ===> '  TO SELECTION
*
* Process routine based on the user's selection.
*
  DO CASE
```

```
***********************************************************
  CASE SELECTION = 1
***********************************************************
*
* Call the mcc description add program.
*
  DO MCCDEADD
***********************************************************
  CASE SELECTION = 2
***********************************************************
*
* Call the mcc description update program.
*
  DO MCCDEUPD
***********************************************************
  CASE SELECTION = 3
***********************************************************
*
* Call the mcc description deletion program.
*
  DO MCCDEDEL
***********************************************************
  CASE SELECTION = 4
***********************************************************
*
* Call the mcc description review program.
*
  DO MCCDEREV
***********************************************************
  CASE SELECTION = 5
***********************************************************
*
* Return to the mainmenu program.
*
  STORE 0 TO TRYAGAIN
  ENDCASE
***********************************************************
  ENDDO WHILE TRYAGAIN = 0
  CLEAR ALL
  CLEAR
  @ 12,1 SAY "PLEASE INSERT PROGRAM DISK I"
  SET TALK ON
  WAIT
  SET TALK OFF
  CLEAR
  RETURN
***********************************************************
```

B. MCCDEADD

```
* MCCDEADD.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Add new monitor command code descriptions to
*             the monitor command code description data
*             base file.
* FILE USED : Mccdesc.dbf index mccdemcc.ndx
* CALLING   : Mccdeadd.fmt, Mccdedup.fmt
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
**********************************************************
* CASE SELECTION = 1   Add A New MCC Description Record
**********************************************************
*
* Set up outer loop to repeat when the user wants to add
* more records.
*
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use the mcc description database indexed on MCC and
* wait for the user to input the new mcc.
*
  USE MCCDESC INDEX MCCDEMCC.NDX
  CLEAR
  STORE '   ' TO MMCC
  @ 12,1 SAY "Enter MCC to be added (i.e. MB1): " GET MMCC;
  PICTURE 'NNN'
  READ
  GO TOP
  SEEK UPPER (MMCC)
  CLEAR
*
* Check for duplicate record on the database.
*
  IF EOF () = .T. THEN
*
* Clear screen and set initial values for variables to
* be added to the file. The M prefix indicates memory
* variables distinguishing them from their corresponding
* database fields.
*
     STORE '          '  TO MGEOLOC
*
* Set-up inner loop which gives the user a chance to
* correct the entries before adding them to the file.
*
     STORE 1 TO CONTADDMC
     DO WHILE CONTADDMC = 1
```

```
*
* Using the MCC description add format file to produce
* the screen display.
*
    SET FORMAT TO MCCDEADD.FMT
    READ
*
* Select a location at the bottom of screen and prompt
* for corrections.
*
    ACCEPT "DO YOU WISH TO MAKE ANY CORRECTIONS? "+;
    " (Y/N) ===> " TO YN
    IF UPPER(YN)="N"
       STORE 0 TO CONTADDMC
       CLEAR
    ENDIF
    ENDDO WHILE CONTADDMC = 0
*
* If entries are correct, add them to database.
*
    APPEND BLANK
    REPLACE MCC     WITH MMCC
    REPLACE GEOLOC  WITH MGEOLOC
  ELSE
*
* Show the user the duplicate MCC description and wait
* for a response.
*
    SET FORMAT TO MCCDEDUP.FMT
    EDIT
    CLEAR
  ENDIF
*
* Select a location at the bottom of the screen and prompt
* for more additions.
*
  ACCEPT "ADD ANOTHER RECORD?  (Y/N) ===>"  TO YN1
  IF UPPER (YN1)="N"
     STORE 0 TO MORE
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  RETURN
*****************************************************
```

C. MCCDEADD.FMT

```
* MCCDEADD.FMT
* AUTHOR     : DAVID H. HORTON MAJOR USMC
* PURPOSE    : Provide the mcc description add format
*              screen.
* FILE USED : None
* CALLING    : None
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
* Set screen format for adding a new mcc description
* record.
*
  @  0,21   SAY "                                    "
  @  1,21   SAY "  ADD A NEW MCC DESCRIPTION FORMAT  "
  @  2,21   SAY "  --------------------------------  "
  @  3,21   SAY "                                    "
  @  7,4    SAY "MCC:"
  @  7,9    SAY MMCC
  @ 10,4    SAY "GEOLOC:" GET MGEOLOC PICTURE '!!!!!!!!!!!'
  @ 13,4    SAY "******************************************"
  @ 13,46   SAY "***************************"
  @ 14,4    SAY "* MCCDESC - CAN BE EDITED DURING THE MCC D"
  @ 14,46   SAY "ESCRIPTION UPDATE PROCESS *"
  @ 15,4    SAY "******************************************"
  @ 15,46   SAY "***************************"
  @ 17,4    SAY  "MCCDESC:"
***********************************************************
```

D. MCCDEDUP.FMT

```
* MCCDEDUP.FMT
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Provide the mcc description duplicate record
*              format screen.
* FILE USED : None
* CALLING    : None
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
* Set screen format for the duplicate mcc description
* record.
*
  @  0,21  SAY "                                    "
  @  1,21  SAY "  MCC DESCRIPTION DUPLICATE FORMAT  "
  @  2,21  SAY "  --------------------------------  "
  @  3,21  SAY "                                    "
  @  7,4   SAY "MCC:"
  @  7,9   SAY MMCC
  @ 10,4   SAY "GEOLOC:"
  @ 10,12  SAY GEOLOC
  @ 13,4   SAY "******************************************"
  @ 13,46  SAY "*****************"
  @ 14,4   SAY "* MCCDESC | EDIT - ^PGDN | EXIT - ^PGUP | "
  @ 14,46  SAY "CONTINUE - ^END *"
  @ 15,4   SAY "******************************************"
  @ 15,46  SAY "*****************"
  @ 17,4   SAY "MCCDESC:"  GET MCCDESC
  @ 21,4   SAY "MCC ("
  @ 21,9   SAY MMCC
  @ 21,12  SAY ") IS ALREADY ON THE MCCDESC.DBF AS SHOWN"+;
               " ABOVE"
***********************************************************
```

E. MCCDEUPD

```
* MCCDEUPD.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Update an existing mcc description record
*             in the mcc description database file.
* FILE USED : Mccdesc.dbf index mccdemcc.ndx
* CALLING   : Mccdeupd.fmt
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
*********************************************************
* CASE SELECTION = 2  Update An Existing MCC Description
*                     Record
*********************************************************
*
* Set-up outer loop to repeat when the user wants to update
* more records.
*
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use mcc description database indexed on monitor command
* code and wait for the user to input the desired monitor
* command code.
*
  USE MCCDESC INDEX MCCDEMCC.NDX
  CLEAR
  STORE '   ' TO MMCC
  @ 12,1 SAY "Enter MCC to be updated (i.e. MB1) : ";
  GET MMCC PICTURE 'NNN'
  READ
  GO TOP
  SEEK UPPER (MMCC)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1  SAY "MCC ("
     @ 21,6  SAY MMCC
     @ 21,9  SAY ") NOT FOUND ON MCCDESC.DBF"
     WAIT
     SET TALK OFF
  ELSE
*
* Storing the old record to a work record area.  The M
* prefix indicates memory variables distinguishing them
* from their corresponding database fields.
*
```

```
    STORE GEOLOC    TO MGEOLOC
*
* Set-up inner loop which gives the user a chance to
* correct the entries before updating the file.
*
    STORE 1 TO CONTUPDMC
    DO WHILE CONTUPDMC = 1
*
* Using the mcc description update format file to produce
* the screen display.
*
    SET FORMAT TO MCCDEUPD.FMT
    EDIT
*
* Select a location near bottom of the screen and prompt
* for corrections.
*
    ACCEPT 'DO YOU WISH TO MAKE ANY CORRECTIONS? '+;
    '  (Y/N) ===>   ' TO YN
    IF UPPER (YN) = 'N'
       STORE 0 TO CONTUPDMC
       CLEAR
    ENDIF
    ENDDO WHILE CONTUPDMC = 0
*
* Storing the corrected edit fields from the work area.
*
    REPLACE MCC          WITH MMCC
    REPLACE GEOLOC       WITH MGEOLOC
  ENDIF
*
* Select a location at the bottom of the screen and prompt
* for more updates.
*
  ACCEPT 'UPDATE ANOTHER RECORD?  (Y/N) ===>   ' TO YN1
  IF UPPER(YN1) = 'N'
    STORE 0 TO MORE
    CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  RETURN
*************************************************************
```

F. MCCDEUPD.FMT

```
* MCCDEUPD.FMT
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Provide the mcc description update format
*             screen.
* FILE USED : None
* CALLING   : None
*
* DATE LAST TIME MODIFIED =====> 11 NOVEMBER 1985 <=====
*
* Set screen format for updating a mcc description record.
*
  @  0,23  SAY "                                 "
  @  1,23  SAY "  MCC DESCRIPTION UPDATE FORMAT  "
  @  2,23  SAY "  -----------------------------  "
  @  3,23  SAY "                                 "
  @  7,4   SAY "MCC:"
  @  7,9   SAY MMCC
  @ 10,4   SAY "GEOLOC:" GET MGEOLOC PICTURE '!!!!!!!!!!!'
  @ 13,4   SAY "*****************************************"
  @ 13,46  SAY "*****************"
  @ 14,4   SAY "* MCCDESC | EDIT - ^PGDN | EXIT - ^PGUP | "
  @ 14,46  SAY "CONTINUE - ^END *"
  @ 15,4   SAY "******************************************"
  @ 15,46  SAY "*****************"
  @ 17,4   SAY "MCCDESC:"  GET MCCDESC
**********************************************************
```

G. MCCDEDEL

```
* MCCDEDEL.PRG
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Delete an existing mcc description on the
*              mcc description database file.
* FILE USED : Mccdesc.dbf index mccdemcc.ndx
* CALLING    : Mccdedel.fmt
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
*********************************************************
* CASE SELECTION = 3  Delete An Existing Mcc Description
*                     Record
*********************************************************
*
* Set-up outer loop to repeat when the user wants to
* delete more records.
*
  STORE 0 TO DELFLAG
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use the mcc description database indexed on MCC and
* wait for the user to input the desired mcc.
*
  USE MCCDESC INDEX MCCDEMCC.NDX
  CLEAR
  STORE '   ' TO MMCC
  @ 12,1 SAY "Enter MCC to be deleted (i.e. MB1): " GET;
  MMCC PICTURE 'NNN'
  READ
  GO TOP
  SEEK UPPER (MMCC)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1 SAY "MCC ("
     @ 21,6 SAY MMCC
     @ 21,9 SAY ") NOT FOUND ON MCCDESC.DBF "
     WAIT
     SET TALK OFF
  ELSE
*
* Using the mcc description delete format file to produce
* the screen display.
*
     SET FORMAT TO MCCDEDEL.FMT
```

```
    EDIT
*
* Select a location near bottom of the screen and prompt
* for deletion and confirmation.
*
    ACCEPT 'Do you Wish To DELETE This Record?'+;
    ' (Y/N) ===>  ' TO YN
    IF UPPER (YN) = 'Y'
       ACCEPT 'ARE YOU SURE YOU WANT TO DELETE THIS'+;
       ' RECORD? (Y/N) ' TO SURE
       IF UPPER (SURE) = 'Y'
          DELETE
          STORE 1 TO DELFLAG
       ENDIF
    ENDIF
   CLEAR
  ENDIF
*
* Select a location at the bottom of the screen and prompt
* for more deletions.
*
  ACCEPT 'DELETE ANOTHER RECORD?  (Y/N) ===>   ' TO YN1
  IF UPPER (YN1) = 'N'
     STORE 0 TO MORE
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE MORE = 0
  CLEAR
  IF DELFLAG = 1 THEN
     @ 12,1 SAY " ONE MOMENT PLEASE ... ERASING DELETED"+;
     " RECORDS "
     PACK
  ENDIF
  CLEAR
  RETURN
***********************************************************
```

H. MCCDEDEL.FMT

```
* MCCDEDEL.FMT
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Provide the mcc description delete format
*             screen.
* FILE USED : None
* CALLING   : None
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
* Set screen format for deleting a mcc description record.
*
  @  0,23  SAY "                                 "
  @  1,23  SAY "  MCC DESCRIPTION DELETE FORMAT  "
  @  2,23  SAY "  -----------------------------  "
  @  3,23  SAY "                                 "
  @  7,4   SAY "MCC:"
  @  7,9   SAY MMCC
  @ 10,4   SAY "GEOLOC:"
  @ 10,12  SAY GEOLOC
  @ 13,4   SAY "******************************************"
  @ 13,46  SAY "*****************"
  @ 14,4   SAY "* MCCDESC | EDIT - ^PGDN | EXIT - ^PGUP | "
  @ 14,46  SAY "CONTINUE - ^END *"
  @ 15,4   SAY "******************************************"
  @ 15,46  SAY "*****************"
  @ 17,4   SAY "MCCDESC:"  GET MCCDESC
************************************************************
```

I. MCCDEREV

```
* MCCDEREV.PRG
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Review an existing mcc description record
*              in the mcc description database file.
* FILE USED : Mccdesc.dbf index mccdemcc.ndx
* CALLING    : Mccderev.fmt
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
*********************************************************
* CASE SELECTION = 4  Review An Existing MCC Description
*                     Record
*********************************************************
*
* Set-up outer loop to repeat when the user wants to
* review more records.
*
  STORE 1 TO MORE
  DO WHILE MORE = 1
*
* Use mcc description database indexed on monitor command
* code and wait for the user to input the desired monitor
* command code.
*
  USE MCCDESC INDEX MCCDEMCC.NDX
  CLEAR
  STORE '    ' TO MMCC
  @ 12,1 SAY "Enter MCC to be reviewed (i.e. MB1) : ";
  GET MMCC PICTURE 'NNN'
  READ
  GO TOP
  SEEK UPPER (MMCC)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1  SAY "MCC ("
     @ 21,6  SAY MMCC
     @ 21,9  SAY ") NOT FOUND ON MCCDESC.DBF"
     WAIT
     SET TALK OFF
  ELSE
*
* Using the mcc description review format file to produce
* the screen display.
*
     SET FORMAT TO MCCDEREV.FMT
```

```
      EDIT
   ENDIF
*
* Select a location at the bottom of the screen and prompt
* for more reviews.
*
   ACCEPT 'REVIEW ANOTHER RECORD?  (Y/N) ===>   ' TO YN1
   IF UPPER(YN1) = 'N'
      STORE 0 TO MORE
      CLEAR
   ENDIF
*
* Return to calling program.
*
   ENDDO WHILE MORE = 0
   RETURN
************************************************************
```

J. MCCDEREV.FMT

```
* MCCDEREV.FMT
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Provide the mcc description review format
*              screen.
* FILE USED : None
* CALLING    : None
*
* DATE LAST TIME MODIFIED =====> 10 NOVEMBER 1985 <=====
*
* Set screen format for reviewing a mcc description record.
*
  @  0,23  SAY "                                 "
  @  1,23  SAY "  MCC DESCRIPTION REVIEW FORMAT  "
  @  2,23  SAY "  -----------------------------  "
  @  3,23  SAY "                                 "
  @  7,4   SAY "MCC:"
  @  7,9   SAY MMCC
  @ 10,4   SAY "GEOLOC:"
  @ 10,12  SAY GEOLOC
  @ 13,4   SAY "******************************************"
  @ 13,46  SAY "*****************"
  @ 14,4   SAY "* MCCDESC | EDIT - ^PGDN | EXIT - ^PGUP | "
  @ 14,46  SAY "CONTINUE - ^END *"
  @ 15,4   SAY "******************************************"
  @ 15,46  SAY "*****************"
  @ 17,4   SAY "MCCDESC:"  GET MCCDESC
************************************************************
```

APPENDIX G

REPORT MODULE LISTINGS

A. REPORCMD

```
* REPORCMD.PRG
* AUTHOR     : DAVID L. HORTON MAJOR USMC
* PURPOSE    : Provide the user the ability to produce
*              standard reports.
* FILE USED  : None
* CALLING    : Repqljob.prg, Repqloff.prg
*
* DATE LAST TIME MODIFIED =====> 13 NOVEMBER 1985 <=====
*
* Display the process menu to the user and wait for the
* selection.
*
  STORE 0 TO SELECTION
  STORE 1 TO TRYAGAIN
  DO WHILE TRYAGAIN = 1
  CLEAR
  @ 3,10  SAY "=============================="
  @ 3,40  SAY "============================="
  @ 6,16  SAY "          PERSONNEL MONITORING"+;
  " REPORTS         "
  @ 7,16  SAY "         "+;
  " --------------------------         "
  @10,16  SAY "   1)  OFFICERS qualified for a specific"+;
  " job    "
  @11,16  SAY "   2)  JOBS qualified for a specific"+;
  " officer    "
  @13,16  SAY "   3)  RETURN to the main"+;
  " menu              "
  ?
  ?
  INPUT 'Enter your selection (1-3) ===> '  TO SELECTION
*
* Process routine based on the user's selection.
*
  DO CASE
**********************************************************
  CASE SELECTION = 1
**********************************************************
*
* Call the qualified officer program.
```

```
*
  DO REPQLOFF
***********************************************************
  CASE SELECTION = 2
***********************************************************
*
* Call the qualified jobs program.
*
  DO REPQLJOB
***********************************************************
  CASE SELECTION = 3
***********************************************************
*
* Return to the mainmenu program.
*
  STORE 0 TO TRYAGAIN
  ENDCASE
***********************************************************
  ENDDO WHILE TRYAGAIN = 0
  CLEAR ALL
  CLEAR
  RETURN
************************************************************
```

B. REPQLOFF

```
* REPQLOFF.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Produce a report of officers that are
*             qualified to fill a specific job.
* FILE USED : Station.dbf index statolno.ndx
*             Officers.dbf index officnam.ndx
* CALLING   : Repqloff.frm
*
* DATE LAST TIME MODIFIED =====> 13 NOVEMBER 1985 <=====
*
* Set-up loop to repeat when the user wants to get another
* report.
*
  STORE 1 TO CONTRP2
  DO WHILE CONTRP2 = 1
*
* Clear screen and get initial value for billet number.
* Display title and request the user to provide the T/O
* line number of the job that needs to be filled.  Wait
* for the user to respond.
*
  CLEAR
  STORE '          ' TO MTOLINEN
  ?
  ?  '                    THE OFFICERS QUALIFIED FOR A JOB'
  ?  '                    ================================'
  ?
  ?
  ?
  ?
  @ 7,1 SAY "Enter T/O Line Number (i.e. 3447N0135A): ";
  GET MTOLINEN PICTURE '9999!9999!'
  READ
*
* Search the station database for the required T/O line
* number and store all the billet requirements.
*
  USE STATION INDEX STATOLNO.NDX
  GO TOP
  SEEK UPPER (MTOLINEN)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1   SAY "T/O LINE NUMBER ("
     @ 21,18  SAY MTOLINEN
     @ 21,28  SAY ") NOT FOUND ON THE STATION.DBF"
     WAIT
     SET TALK OFF
  ELSE
     STORE BMOS     TO MBMOS
     STORE BPGRD    TO MBPGRD
     STORE MCC      TO MMCC
     STORE BILLET   TO MBILLET
     ? MTOLINEN,MMCC,MBPGRD,MBMOS,MBILLET
*
* Search the officer database for the officers
* that meet the billet requirements.  Check to
* see if the user wants a printed report or not.
*
     USE OFFICERS INDEX OFFICNAM.NDX
     ACCEPT 'DO YOU WANT TO PRINT THE REPORT? (Y/N)  ';
      TO YN1
     IF UPPER (YN1) = 'Y'
        SET PRINT ON
     ENDIF
*
* Create the report of all qualified officers who can
* fill the job.
*
     REPORT FORM REPQLOFF FOR (PGRD=MBPGRD .OR.;
     SPGRD=MBPGRD) .AND. (PMOS=MBMOS .OR. AMOS1=MBMOS .OR.;
     AMOS2=MBMOS)
     ?
     ? '  T/O LINE        BILLET    BILLET BILLET'
     ? '  NUMBER      MCC PAY GRADE MOS    DESCRIPTION'
     ? '
==========|||===|==||||||||====|||====================|'
     ? ' ',MTOLINEN,' ',MMCC,MBPGRD,'      ',MBMOS,'',;
     MBILLET
     SET PRINT OFF
  ENDIF
*
* Ask the user if more reports are needed.
*
  ACCEPT 'DO YOU WANT ANOTHER REPORT? (Y/N)    '  TO YN1
  IF UPPER(YN1) = 'N'
     STORE 0 TO CONTRP2
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE CONTRP2 = 0
  RETURN
***********************************************************
```

C. REPQLJOB

```
* REPQLJOB.PRG
* AUTHOR    : DAVID L. HORTON MAJOR USMC
* PURPOSE   : Produce a report of jobs that an officer
*             is qualified to fill.
* FILE USED : Officers.dbf index officmid.ndx
*             Station.dbf index stabpgrd.ndx
* CALLING   : Repqljob.frm
*
* DATE LAST TIME MODIFIED =====> 12 NOVEMBER 1985 <=====
*
* Set-up loop to repeat when the user wants to get another
* report.
*
  STORE 1 TO CONTRP1
  DO WHILE CONTRP1 = 1
*
* Clear screen and set initial value for military ID
* number.  Display title and request the user to provide
* the military id number of the officer who needs a job.
* Wait for the user to respond.
*
  CLEAR
  STORE  '          ' TO MMID
  ?
  ?  '                    THE JOBS QUALIFIED FOR AN'+;
  ' OFFICER'
  ?  '                   '+;
  ' ================================='
  ?
  ?
  ?
  ?
  @ 8,1 SAY "Enter Military ID (i.e. 0094366065): ";
  GET MMID PICTURE '9999999999'
  READ
*
* Search the officer database for the required military ID
* number and store all the officer's qualifications.
*
  USE OFFICERS INDEX OFFICMID.NDX
  GO TOP
  SEEK UPPER (MMID)
  CLEAR
*
* Check for no record found on the database.
*
  IF EOF () = .T. THEN
     SET TALK ON
     @ 21,1  SAY "MILITARY ID ("
     @ 21,14 SAY MMID
     @ 21,24 SAY ") NOT FOUND ON THE OFFICERS.DBF"
     WAIT
     SET TALK OFF
  ELSE
     STORE '   ' TO MSPGRD
     STORE LNAME TO MLNAME
     STORE FNAME TO MFNAME
     STORE MI    TO MMI
     STORE PGRD  TO MPGRD
     STORE SPGRD TO MSPGRD
     STORE PMOS  TO MPMOS
     STORE AMOS1 TO MAMOS1
     STORE AMOS2 TO MAMOS2
     ? MMID,MLNAME,MFNAME,MMI,MPGRD,MSPGRD,MPMOS,MAMOS1,;
       MAMOS2
*
* Search station database for jobs which have the same pay
* grade as the officer.  If the officer has been selected
* to the next pay grade the highest pay grade will be used.
*
     USE STATION INDEX STABPGRD.NDX
     STORE SUBSTR(MPGRD,1,2) TO SUBMPGRD
     STORE SUBSTR(MSPGRD,1,2) TO SUBMSPGR
     IF SUBMSPGR = '  ' THEN
        GO TOP
        SEEK SUBMPGRD
        STORE SUBMPGRD TO BESTPGRD
     ELSE
        GO TOP
        SEEK SUBMSPGR
        STORE SUBMSPGR TO BESTPGRD
     ENDIF
*
* Check to see if the user wants a printed report or not.
*
     ACCEPT 'DO YOU WANT TO PRINT THE REPORT ?   (Y/N)   ';
      TO YN
     IF UPPER (YN) = 'Y'
        SET PRINT ON
     ENDIF
*
* Create the report of all jobs that the officer is
* qualified to fill.
*
     REPORT FORM REPQLJOB FOR (BMOS=MPMOS .OR. BMOS=MAMOS1;
     .OR. BMOS=MAMOS2) .AND. (BPGRD=BESTPGRD)
     ?
     ? ' MID        LAST NAME            FIRST NAME   MI'+;
     ' PGRD SPGRD PMOS AMOS1 AMOS2'
     ? '|==========|==================|=============|='+;
     '|===||===|||====|====||====|'
     ? '',MMID,MLNAME,MFNAME,MMI,MPGRD,'',MSPGRD,' ',;
     MPMOS,MAMOS1,'',MAMOS2
     SET PRINT OFF
  ENDIF
*
* Ask the user if more reports are needed.
*
  ACCEPT 'DO YOU WANT ANOTHER REPORT?  (Y/N)     '  TO YN1
  IF UPPER(YN1) = 'N'
     STORE 0 TO CONTRP1
     CLEAR
  ENDIF
*
* Return to calling program.
*
  ENDDO WHILE CONTRP1 = 0
  RETURN
************************************************************
```

APPENDIX H

USER MANUAL

A. OPERATING INSTRUCTIONS

1. General

The Personnel Monitoring Database System (PMDS) is a menu driven designed system. Once the system is started, you can switch between databases and tasks within a database without leaving the system menu control. If you need additional capabilities beyond those provided, the system can be switched directly into dBASE III for customized queries or reports. After you are finished, control will be returned to the operating system.

2. Booting The Operating System

When booting the operating system it is necessary to update the CONFIG.SYS file on your disk. This file should have FILES=20 and BUFFERS=15 as the minimum configuration statements. This will overlay the standard default used by the operating system and is necessary to run the PMDS.

After including the CONFIG.SYS file on your disk, reboot the system by pressing Ctrl, Alt and Del at the same time. If your system does not have an automatic clock, enter the date and time as prompted. If working with a color monitor, when you receive the operating system prompt

">", type **KOLOR** followed by a carriage return (<--'). This will provide a blue display which should be pleasing to the eyes as you work.

3. Loading The dBASE III System

Now the dBASE III system can be loaded into memory. When you are using floppy disks place dBASE III system disk I in the A floppy disk port. For most machines this will either be the top or left port. Then type DBASE followed by a carriage return. When prompted by the system, place dBASE III system disk II in the A port and press the carriage return. The dBASE III copyright information will appear followed by the dBASE prompt ".". To exit from dBASE III, type QUIT followed by a carriage return to return to the operating system.

Again if using floppy disks, when you receive the dBASE prompt type SET **DEFAULT** TO B: followed by a carriage return. This tells the dBASE system to look at the B floppy disk drive for all your files.

4. Loading The Personnel Monitoring Database System

You are now ready to load PMDS. Insert the PMDS disk I in the B port and type DO PMONITOR followed by a carriage return. At this point you are under the control of PMDS which will guide you through the system.

The remaining part of this user manual provides a copy of the screens and reports you will encounter as you PMDS. For more detailed information about each program or data element, refer to Appendices A through G.

B. SYSTEM SCREENS AND REPORTS

1. Program Screen Matrix

PROGRAM	SCREENS						REPORTS		
PMONITOR	1								
MAINMENU	2	36							
OFFICCMD	3								
OFFICADD	4	8	10	11					
OFFICUPD	5	12	15	19					
OFFICDEL	6	13	16	18	19				
OFFICREV	7	14	19	20	21				
CURRJCMD	24								
CURRJADD	9	26							
CURRJUPD	5	12	20	25					
CURRJDEL	17	20							
STATICMD	27								
STATIADD	11	28	32	33					
STATIUPD	12	22	29	34					
STATIDEL	13	22	30	37					
STATIREV	14	22	31	38					
MCCDECMD	35	43							
MCCDEADD	11	39	44	45					
MCCDEUPD	12	23	40	46					
MCCDEDEL	13	23	41	47					
MCCDEREV	14	23	42	48					
REPORCMD	49								
REPQLJOB	50						1		
REPQLOFF	51						2		

Figure H.1 Program Screen Matrix

2. Personnel Monitoring System Screens

```
************************ Screen 1 ***************************
*                                                           *
*         P E R S O N N E L     M O N I T O R I N G         *
*                                                           *
*               D A T A B A S E   S Y S T E M               *
*                                                           *
*                         Written By                        *
*                                                           *
*                 David L. Horton Major USMC                *
*                                                           *
*Push any Key to start                                      *
*************************************************************
```

```
************************ Screen 2 ***************************
*                                                           *
* ========================================================= *
*                                                           *
*          PERSONNEL MONITORING SYSTEM MAIN MENU            *
*          -------------------------------------            *
*                                                           *
*             1)   Maintain OFFICERS File                   *
*             2)   Maintain CURRJOBS File                   *
*             3)   Maintain STATION  File                   *
*             4)   Maintain MCCDESC  File                   *
*             5)   Reports                                  *
*                                                           *
*             6)   Return to dBase                          *
*             7)   Return to Operating System               *
*                                                           *
*Please Enter your Choice (1-7) ====>                       *
*                                                           *
*************************************************************
```

```
************************* Screen 3 **************************
*                                                           *
* ========================================================= *
*                                                           *
*                 MAINTAIN OFFICERS FILE                    *
*                 ----------------------                    *
*                                                           *
*        1)  ADD a new officer record                       *
*        2)  UPDATE an existing officer record              *
*        3)  DELETE an existing officer record              *
*        4)  REVIEW an existing officer record              *
*                                                           *
*        5)  RETURN to the main menu                        *
*                                                           *
*Enter your selection (1-5) ===>                            *
*************************************************************
```

```
************************ Screen 4 **************************
*                                                          *
*     Enter military ID to be added (i.e. 0094366065):     *
*                                                          *
************************************************************


************************ Screen 5 **************************
*                                                          *
*    Enter military ID to be updated (i.e. 0094366065):    *
*                                                          *
************************************************************


************************ Screen 6 **************************
*                                                          *
*    Enter military ID to be deleted (i.e. 0094366065):    *
*                                                          *
************************************************************


************************ Screen 7 **************************
*                                                          *
*    Enter military ID to be reviewed (i.e. 0094366065):   *
*                                                          *
************************************************************


************************ Screen 8 **************************
*                                                          *
*                ADD A NEW OFFICER FORMAT                  *
*                ------------------------                  *
*                                                          *
* MID: 0094366065  LNAME:             FNAME:          MI:  *
*                                                          *
* SPGRD:          PGRD:           DOR:                     *
*                                                          *
* PMOS:           AMOS1:          AMOS2:                   *
*                                                          *
* DAUSDR:         PEBD:           AFADBD:        EAS:      *
*                                                          *
************************************************************
*                                                          *
*DO YOU WISH TO MAKE ANY CORRECTIONS?  (Y/N) ===>          *
*                                                          *
************************************************************
```

```
*********************** Screen 9 *************************
*                                                        *
*              ADD A NEW CURRENT JOB FORMAT              *
*              ----------------------------              *
*                                                        *
* MID: 0094366065  LNAME: HORTON     FNAME: DAVID   MI: L *
*                                                        *
* SPGRD:           PGRD: 04      DOR: 830101             *
*                                                        *
* PMOS: 4002       AMOS1: 9648   AMOS2: 9952             *
*                                                        *
* DAUSDR: 820811  PEBD: 650323  AFADBD: 690313 EAS: 000000 *
*                                                        *
*                                                        *
* TOLINENO:         MCC:     GLCDCTB:     DCTB:    RTD:  *
*                                                        *
* FMCC:      PDU1:      PDU2:     PDU3:    MARST:  SPOSVC: *
*                                                        *
**********************************************************
** OFFNOTES - CAN BE EDITED DURING THE CURRENT JOB UPDATE **
**          PROCESS                                      **
**********************************************************
*                                                        *
* OFFNOTES:                                              *
*                                                        *
**********************************************************
*                                                        *
*DO YOU WISH TO MAKE ANY CORRECTIONS?  (Y/N) ===>         *
*                                                        *
**********************************************************


*********************** Screen 10 ************************
*                                                        *
*                OFFICER DUPLICATE FORMAT                *
*                ------------------------                *
*                                                        *
* MID: 0094366065  LNAME: HORTON     FNAME: DAVID   MI: L *
*                                                        *
* SPGRD:           PGRD: 04      DOR: 830101             *
*                                                        *
* PMOS: 4002       AMOS1: 9648   AMOS2: 9952             *
*                                                        *
* DAUSDR: 820811  PEBD: 650323  AFADBD: 690313 EAS: 000000 *
*                                                        *
*                                                        *
* MILITARY ID (0094366065) IS ALREADY ON THE OFFICERS.DBF *
* AS SHOWN ABOVE                                         *
*                                                        *
*Press any key to continue...                            *
**********************************************************
```

```
************************ Screen 11 *************************
*                                                          *
*     ADD ANOTHER RECORD?  (Y/N) ===>                      *
*                                                          *
************************************************************
```

```
************************ Screen 12 *************************
*                                                          *
*     UPDATE ANOTHER RECORD?  (Y/N) ===>                   *
*                                                          *
************************************************************
```

```
************************ Screen 13 *************************
*                                                          *
*     DELETE ANOTHER RECORD?  (Y/N) ===>                   *
*                                                          *
************************************************************
```

```
************************ Screen 14 *************************
*                                                          *
*     REVIEW ANOTHER RECORD?  (Y/N)  ===>                  *
*                                                          *
************************************************************
```

```
************************ Screen 15 *************************
*                                                          *
*                  OFFICER UPDATE FORMAT                   *
*                  ---------------------                   *
*                                                          *
* MID: 0094366065  LNAME: HORTON      FNAME: DAVID   MI: L *
*                                                          *
* SPGRD:          PGRD: 04      DOR: 830101                *
*                                                          *
* PMOS: 4002      AMOS1: 9648   AMOS2: 9952                *
*                                                          *
* DAUSDR: 820811  PEBD: 650323  AFADBD: 690313 EAS: 000000 *
*                                                          *
* TOLINENO:  MCC: H99 GLCDCTB:8407 DCTB:840714 RTD:      0 *
*                                                          *
* FMCC:233  PDU1:UCG  PDU2:TDD  PDU3:J38 MARST:M  SPOSVC:  *
************************************************************
** OFFNOTES - CAN BE EDITED DURING THE CURRENT JOB UPDATE **
**           PROCESS                                      **
************************************************************
* OFFNOTES:                                                *
* DO YOU WANT TO MAKE ANY CORRECTIONS?  (Y/N) ===>         *
************************************************************
```

```
************************ Screen 16 *************************
*                                                          *
*                  OFFICER DELETE FORMAT                   *
*                  ---------------------                   *
*                                                          *
* MID: 0094366065  LNAME: HORTON      FNAME: DAVID   MI: L *
*                                                          *
* SPGRD:          PGRD: 04      DOR: 830101                *
*                                                          *
* PMOS: 4002      AMOS1: 9648   AMOS2: 9952                *
*                                                          *
* DAUSDR: 820811  PEBD: 650323  AFADBD: 690313 EAS: 000000 *
*                                                          *
*                                                          *
* Do You Wish To DELETE This Record?  (Y/N) ===>           *
************************************************************
* ARE YOU SURE YOU WANT TO DELETE THIS RECORD? (Y/N)       *
************************************************************
```

```
************************ Screen 17 *************************
*                                                          *
*                CURRENT JOB DELETE FORMAT                 *
*                -------------------------                 *
*                                                          *
* MID: 0094366065                                          *
*                                                          *
* TOLINENO:  MCC: H99 GLCDCTB:8407 DCTB:840714 RTD:     0  *
*                                                          *
* FMCC:233  PDU1:UCG  PDU2:TDD  PDU3:J38 MARST:M SPOSVC:   *
*                                                          *
************************************************************
* OFFNOTES | EDIT - ^PGDN | EXIT - ^PGUP | CONTINUE - ^END *
************************************************************
*                                                          *
* OFFNOTES:  Memo                                          *
*                                                          *
************************************************************
*                                                          *
*                                                          *
*   CURRENT JOB RECORD FOR MID 0094366065 IS ALSO BEING    *
*   DELETED                                                *
*Press any key to continue...                              *
*                                                          *
************************************************************
```

```
************************** Screen 18 ***********************
*                                                          *
* ONE MOMENT PLEASE ... ERASING DELETED RECORDS            *
************************************************************
```

```
************************ Screen 19 ************************
*                                                         *
* MILITARY IDENTIFICATION NUMBER (0094366065) NOT FOUND ON *
* OFFICERS.DBF                                            *
*Press any key to continue...                             *
*                                                         *
***********************************************************


************************ Screen 20 ************************
*                                                         *
* MILITARY IDENTIFICATION NUMBER (0094366065) NOT FOUND ON *
* CURRJOBS.DBF                                            *
*Press any key to continue...                             *
*                                                         *
***********************************************************


************************ Screen 21 ************************
*                                                         *
*                  OFFICER REVIEW FORMAT                  *
*                  ---------------------                  *
*                                                         *
* MID: 0094366065  LNAME: HORTON      FNAME: DAVID   MI: L *
*                                                         *
* SPGRD:           PGRD: O4       DOR: 830101             *
*                                                         *
* PMOS: 4002       AMOS1: 9648    AMOS2: 9952             *
*                                                         *
* DAUSDR: 820811   PEBD: 650323   AFADBD: 690313 EAS: 000000 *
*                                                         *
*                                                         *
* TOLINENO:  MCC: H99 GLCDCTB:8407 DCTB:840714 RTD:      0 *
*                                                         *
* FMCC:233  PDU1:UCG  PDU2:TDD  PDU3:J38 MARST:M  SPOSVC:0 *
*                                                         *
***********************************************************
*                                                         *
* OFFNOTES | EDIT - ^PGDN | EXIT - ^PGUP | CONTINUE - ^END *
*                                                         *
***********************************************************
* OFFNOTES: Memo                                          *
*                                                         *
***********************************************************
```

```
************************ Screen 22 ************************
*                                                         *
*  T/O LINE NUMBER (3447N0135A) NOT FOUND ON STATION.DBF   *
*Press any key to continue...                             *
***********************************************************
```

```
************************ Screen 23 ************************
*                                                         *
*  MCC (MB1) NOT FOUND ON MCCDESC.DBF                     *
*Press any key to continue...                             *
***********************************************************
```

```
************************* Screen 24 ***********************
* ======================================================= *
*                                                         *
*              MAINTAIN CURRENT JOBS FILE                 *
*              --------------------------                 *
*                                                         *
*       1)  UPDATE an existing current job record         *
*                                                         *
*       2)  RETURN to the main menu                       *
*                                                         *
*Enter your selection (1-2) ===>                          *
***********************************************************
```

```
************************ Screen 25 ************************
*                                                         *
*                 CURRENT JOB UPDATE FORMAT               *
*                 -------------------------               *
*                                                         *
* MID: 0094366065  LNAME: HORTON      FNAME: DAVID   MI: L *
*                                                         *
* SPGRD:          PGRD: O4      DOR: 830101               *
*                                                         *
* PMOS: 4002      AMOS1: 9648   AMOS2: 9952               *
*                                                         *
* DAUSDR: 820811  PEBD: 650323  AFADBD: 690313 EAS: 000000 *
*                                                         *
* TOLINENO:  MCC: H99 GLCDCTB:8407 DCTB:840714 RTD:      0 *
*                                                         *
* FMCC:233  PDU1:UCG  PDU2:TDD  PDU3:J38 MARST:M  SPOSVC:0 *
***********************************************************
* OFFNOTES | EDIT - ^PGDN | EXIT - ^PGUP | CONTINUE - ^END *
***********************************************************
* OFFNOTES: Memo                                          *
***********************************************************
* DO YOU WISH TO MAKE ANY CORRECTIONS?  (Y/N) ===>        *
***********************************************************
```

```
************************ Screen 26 *************************
*                                                          *
*               CURRENT JOB DUPLICATE FORMAT               *
*               ----------------------------               *
*                                                          *
* MID: 0094366065                                          *
*                                                          *
* TOLINENO:  MCC: H99 GLCDCTB:8407 DCTB:840714 RTD:     0  *
*                                                          *
* FMCC:233  PDU1:UCG  PDU2:TDD  PDU3:J38 MARST:M SPOSVC:   *
*                                                          *
************************************************************
* OFFNOTES | EDIT - ^PGDN | EXIT - ^PGUP | CONTINUE - ^END *
************************************************************
*                                                          *
* OFFNOTES:  Memo                                          *
*                                                          *
************************************************************
*                                                          *
*                                                          *
*       MILITARY ID (0094366065) IS ALREADY ON THE         *
*       CURRJOBS.DBF AS SHOWN ABOVE                        *
*Press any key to continue...                              *
*                                                          *
************************************************************
```

```
************************* Screen 27 ************************
*                                                          *
* ======================================================== *
*                                                          *
*                MAINTAIN STATION FILE                     *
*                ---------------------                     *
*                                                          *
*        1)  ADD a new duty station record                 *
*        2)  UPDATE an existing duty station record        *
*        3)  DELETE an existing duty station record        *
*        4)  REVIEW an existing duty station record        *
*                                                          *
*        5)  RETURN to the main menu                       *
*                                                          *
*Enter your selection (1-5) ===>                           *
************************************************************
```

```
************************ Screen 28 ************************
*                                                         *
*   Enter T/O line number to be added (i.e. 3447N0135A):  *
*                                                         *
***********************************************************
```

```
************************ Screen 29 ************************
*                                                         *
*  Enter T/O line number to be updated (i.e. 3447N0135A): *
*                                                         *
***********************************************************
```

```
************************ Screen 30 ************************
*                                                         *
*  Enter T/O line number to be deleted (i.e. 3447N0135A): *
*                                                         *
***********************************************************
```

```
************************ Screen 31 ************************
*                                                         *
*  Enter T/O line number to be reviewed (i.e. 3447N0135A):*
*                                                         *
***********************************************************
```

```
************************ Screen 32 ************************
*                                                         *
*                 ADD A NEW BILLET FORMAT                 *
*                 -----------------------                 *
*                                                         *
*                                                         *
* BMOS:      BPGRD:     BILLET:                           *
*                                                         *
* MCC:        TOLINENO: 3447N0135A                        *
*                                                         *
***********************************************************
** BILNOTES - CAN BE EDITED DURING THE STATION UPDATE    **
**            PROCESS                                    **
***********************************************************
* BILNOTES:                                               *
*                                                         *
*                                                         *
* DO YOU WANT TO MAKE ANY CORRECTIONS?  (Y/N) ===>        *
***********************************************************
```

```
************************ Screen 33 *************************
*                                                          *
*                STATION DUPLICATE FORMAT                  *
*                ------------------------                  *
*                                                          *
*                                                          *
* BMOS: 4002 BPGRD: 05  BILLET: INFO SYS MGT OFFICER       *
*                                                          *
* MCC: 151    TOLINENO: 3447N0135A                         *
*                                                          *
************************************************************
* BILNOTES | EDIT - ^PGDN | EXIT - ^PGUP | CONTINUE - ^END *
************************************************************
* BILNOTES: Memo                                           *
*                                                          *
*                                                          *
*       T/O LINE NUMBER (3445N0135A) IS ALREADY ON THE     *
*       STATION.DBF AS SHOWN ABOVE                         *
************************************************************
```

```
************************ Screen 34 *************************
*                                                          *
*                 STATION UPDATE FORMAT                    *
*                 ---------------------                    *
*                                                          *
*                                                          *
* BMOS: 4002 BPGRD: 05  BILLET: INFO SYS MGT OFFICER       *
*                                                          *
* MCC: 151    TOLINENO: 3447N0135A                         *
*                                                          *
************************************************************
* BILNOTES | EDIT - ^PGDN | EXIT - ^PGUP | CONTINUE - ^END *
************************************************************
* BILNOTES: Memo                                           *
*                                                          *
*                                                          *
* DO YOU WISH TO MAKE ANY CORRECTIONS?  (Y/N) ===>         *
************************************************************
```

```
************************ Screen 35 *************************
*                                                          *
*   PLEASE INSERT PROGRAM DISK I                           *
*Press any key to continue...                              *
************************************************************
```

```
************************ Screen 36 *************************
*                                                          *
*   PLEASE INSERT PROGRAM DISK II                          *
*Press any key to continue...                              *
************************************************************
```

```
************************ Screen 37 *************************
*                                                          *
*                  STATION DELETE FORMAT                   *
*                  ---------------------                   *
*                                                          *
*                                                          *
* BMOS: 4002 BPGRD: 05  BILLET: INFO SYS MGT OFFICER       *
*                                                          *
* MCC: 151    TOLINENO: 3447N0135A                         *
*                                                          *
************************************************************
* BILNOTES | EDIT - ^PGDN | EXIT - ^PGUP | CONTINUE - ^END *
************************************************************
* BILNOTES: Memo                                           *
*                                                          *
*                                                          *
* Do You Wish To DELETE This Record? (Y/N) ===>            *
* ARE YOU SURE YOU WANT TO DELETE THIS RECORD? (Y/N)       *
************************************************************
```

```
************************ Screen 38 *************************
*                                                          *
*                  STATION REVIEW FORMAT                   *
*                  ---------------------                   *
*                                                          *
*                                                          *
* BMOS: 4002 BPGRD: 05  BILLET: INFO SYS MGT OFFICER       *
*                                                          *
* MCC: 151    TOLINENO: 3447N0135A                         *
*                                                          *
************************************************************
* BILNOTES | EDIT - ^PGDN | EXIT - ^PGUP | CONTINUE - ^END *
************************************************************
* BILNOTES: Memo                                           *
*                                                          *
*                                                          *
************************************************************
```

```
************************ Screen 39 *************************
*                                                          *
*   Enter MCC to be added (i.e. MB1):                      *
*                                                          *
************************************************************
```

```
************************ Screen 40 *************************
*                                                          *
*   Enter MCC to be updated (i.e. MB1):                    *
*                                                          *
************************************************************
```

```
************************ Screen 41 *************************
*                                                          *
*  Enter MCC to be deleted (i.e. MB1):                     *
*                                                          *
************************************************************
```

```
************************ Screen 42 *************************
*                                                          *
*  Enter MCC to be reviewed (i.e. MB1):                    *
*                                                          *
************************************************************
```

```
************************* Screen 43 ************************
*                                                          *
* ======================================================== *
*                                                          *
*            MAINTAIN MCC DESCRIPTION FILE                 *
*            -----------------------------                 *
*                                                          *
*    1)  ADD a new mcc description record                  *
*    2)  UPDATE an existing mcc description record         *
*    3)  DELETE an existing mcc description record         *
*    4)  REVIEW an existing mcc description record         *
*                                                          *
*    5)  RETURN to the main menu                           *
*                                                          *
*Enter your selection (1-5) ===>                           *
************************************************************
```

```
************************ Screen 44 *************************
*                                                          *
*             ADD A NEW MCC DESCRIPTION FORMAT             *
*             --------------------------------             *
*                                                          *
*                                                          *
* MCC:                                                     *
*                                                          *
* GEOLOC:                                                  *
*                                                          *
************************************************************
** MCCDESC - CAN BE EDITED DURING THE MCC DESCRIPTION     **
**           UPDATE PROCESS                               **
************************************************************
* MCCDESC:                                                 *
*                                                          *
*                                                          *
* DO YOU WANT TO MAKE ANY CORRECTIONS?  (Y/N) ===>         *
************************************************************
```

```
************************ Screen 45 *************************
*                                                          *
*             MCC DESCRIPTION DUPLICATE FORMAT             *
*             --------------------------------             *
*                                                          *
*                                                          *
* MCC: MB1                                                 *
*                                                          *
* GEOLOC: EAST COAST                                       *
*                                                          *
************************************************************
* MCCDESC | EDIT - ^PGDN | EXIT - ^ PGUP | CONTINUE - ^END *
************************************************************
* MCCDESC: Memo                                            *
*                                                          *
*                                                          *
* MCC (MB1) IS ALREADY ON THE MCCDESC.DBF AS SHOWN ABOVE   *
************************************************************
```

```
************************ Screen 46 *************************
*                                                          *
*              MCC DESCRIPTION UPDATE FORMAT               *
*              -----------------------------               *
*                                                          *
* MCC: MB1                                                 *
*                                                          *
* GEOLOC: EAST COAST                                       *
*                                                          *
************************************************************
* MCCDESC | EDIT - ^PGDN | EXIT - ^ PGUP | CONTINUE - ^END *
************************************************************
* MCCDESC: Memo                                            *
*                                                          *
* DO YOU WISH TO MAKE ANY CORRECTIONS?  (Y/N) ===>         *
************************************************************
```

```
************************ Screen 47 *************************
*                                                          *
*              MCC DESCRIPTION DELETE FORMAT               *
*              -----------------------------               *
*                                                          *
* MCC: MB1                                                 *
*                                                          *
* GEOLOC: EAST COAST                                       *
*                                                          *
************************************************************
* MCCDESC | EDIT - ^PGDN | EXIT - ^ PGUP | CONTINUE - ^END *
************************************************************
* MCCDESC: Memo                                            *
*                                                          *
* Do You Wish To DELETE This Record? (Y/N) ===>            *
* ARE YOU SURE YOU WANT TO DELETE THIS RECORD? (Y/N)       *
************************************************************
```

```
************************ Screen 48 *************************
*                                                          *
*              MCC DESCRIPTION REVIEW FORMAT               *
*              -----------------------------               *
*                                                          *
* MCC: MB1                                                 *
*                                                          *
* GEOLOC: EAST COAST                                       *
*                                                          *
************************************************************
* MCCDESC | EDIT - ^PGDN | EXIT - ^ PGUP | CONTINUE - ^END *
************************************************************
* MCCDESC: Memo                                            *
************************************************************
```

```
************************* Screen 49 ************************
*                                                          *
* ======================================================== *
*                                                          *
*             PERSONNEL MONITORING REPORTS                 *
*             ----------------------------                 *
*                                                          *
*    1)  OFFICERS qualified for a specific job             *
*    2)  JOBS qualified for a specific officer             *
*                                                          *
*    3)  RETURN to the main menu                           *
*                                                          *
*Enter your selection (1-3) ===>                           *
************************************************************
```

```
************************ Screen 50 *************************
*  THE OFFICERS QUALIFIED FOR A JOB                        *
*  ================================                        *
*                                                          *
*   Enter T/O line number (i.e. 3447N0135A):               *
*                                                          *
*  3447N0135A 151 O5 4002                                  *
*  DO YOU WANT A PRINTED REPORT? (Y/N)                     *
************************************************************
```

```
************************ Screen 51 *************************
*  THE JOBS QUALIFIED FOR AN OFFICER                       *
*  =================================                       *
*                                                          *
*   Enter Military ID (i.e. 0094366065):                   *
*                                                          *
*  0094366065 HORTON  DAVID L  O4  4002 9648 9952          *
*  DO YOU WANT A PRINTED REPORT? (Y/N)                     *
************************************************************
```

```
************************ Report 1 **************************
*      OFFICERS QUALIFIED FOR THE JOB                      *
*                                                          *
* Military  Last        First    MI PMOS AMOS1 AMOS2 DAUSDR*
* ID        Name        Name                               *
*                                                          *
*0094366065 HORTON      DAVID    L  4002 9648  9952  820811*
*                                                          *
*T/O LINE         BILLET    BILLET BILLET                  *
*NUMBER      MCC  PAY GRADE MOS    DESCRIPTION             *
*==========||===||==||||||||====|||====================|   *
*3447N0135A  151  O5        4002   INFO SYS MGT OFFICER    *
************************************************************
```

```
************************ Report 2 **************************
*      JOBS QUALIFIED FOR THE OFFICER                      *
*                                                          *
*     T/O LINE    BILLET     BILLET  BILLET                *
*MCC  NUMBER      PAY GRADE  MOS     DESCRIPTION           *
*                                                          *
*151  3447N0135A  O5         4002    INFO SYS MGT OFFICER  *
*                                                          *
*MILITARY   LAST     FIRST                                 *
*ID         NAME     NAME    MI PGRD SPGRD PMOS AMOS1 AMOS2*
*==========|========|=======|=||===||===|||====|====||====|*
*0094366065 HORTON   DAVID   L  O4          4002 9648  9952 *
*                                                          *
*(This report is not to scale.)                            *
************************************************************
```

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